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Art. I. *Elements of Geometry, Geometrical Analysis, and Plane Trigonometry.* With an Appendix, Notes and Illustrations. By John Leslie, Professor of Mathematics in the University of Edinburgh. 8vo. pp. xvi. 494. price 12s. boards. Edinburgh, Brown and Crombie; London, Longman and Co. 1809.

It is remarkable that scarcely any of the British editors of Euclid publish *all* the fifteen books of his Elements. Sir Henry Billingsley's edition, in 1570, contains them all; together with another book added by Flussas, and some propositions respecting mixed and composed regular solids. Barrow's, also, published in 1660, contains the whole, with the exception of a few propositions in the latter books; including, besides, the Data, and Demonstrations of Archimedes's theorems on the Sphere and Cylinder. David Gregory's elegant edition of the Works, Gr. and Lat. 1703, comprises, of course, the whole of the Elements: and this, we believe, is the latest edition published in England, that includes all the fifteen books. For Dechales's contains only the first six books, with the 11th and 12th: Stone's edition is the same books, with some valuable additions to each book: Martin's contains only the same books, the additions respecting spheric and conic geometry being his own. Simson, again, the great restorer of Euclid, only gives the same books, besides the Data, and his own treatises on Plane and Spherical Trigonometry. Bonnycastle follows the same plan. Playfair's edition, so far as relates to the first six books of the *Elements* (and he does not exhibit the *Data* at all), is neither more nor less than a *verbatim unacknowledged copy* of Simson's\*, with a slight alteration or two res-

As this is rather a *serious* charge to bring against a work formerly some little notoriety amongst the Edinburgh classes, though of no reputation in the scientific world at large, it may not be amiss to

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pecting parallel lines in the sixth book, and a change, much for the worse, in the fifth book. Ingram, in his *Euclid*, (the last edition worth specifying,) has given to the fifth book all the conciseness, perspicuity, and force, of which the Euclidean doctrine of proportion is susceptible: but he, like most of his precursors, has neglected to pre-

shew that it is *just*. First, we affirm that the first six books of Professor Playfair's *Euclid*, are, with the exception of the few alterations referred to above, copied verbatim from Simson's edition. This may be ascertained by any one who will take the trouble of comparing the two works. In general, definitions, propositions, demonstrations, corollaries, are *word for word* the same. If Dr. Simson end with saying "Therefore, one circle, &c. Q. E. D.;" so does Mr. Playfair. If the Doctor terminate with "Wherefore, if a straight line, &c. Q. E. D.;" so does the Professor. If the Doctor say "Therefore, if from the ends of, &c. Q. E. D.;" so does the Professor: copying so carefully, indeed, as to adopt the peculiarities of language, and even of punctuation. It may be said, True: this is because they both copy *Euclid*. The fact, however, is otherwise. Mr. Playfair's transcript *cannot* be from *Euclid*; nor is it exclusively from the editions of Barrow, of Stone, of Bonycastle, &c. or sometimes from one, and sometimes from another: but uniformly, constantly, and faithfully, from Simson. Thus, if Simson by omitting little words, as in the demonstration of Prop. 3. lib. 6., render his language inelegant, so does Playfair. If Simson use the indefinite article *the*, instead of *an* or *one*, as in the enunciation of the same proposition, and thus represent a triangle as having but one angle; so does Playfair; notwithstanding Dechaies, Barrow, Martin, Stone, and Bonycastle, (though they do not copy from each other,) guard carefully against this source of obscurity. Next, we affirm that Mr. Playfair's wholesale copy of nearly half his book from Simson is *unacknowledged*. We believe it will be found, on careful examination, that there are but *five* fair and manifest acknowledgements; which all refer only to particular parts of what he has copied. These are, 1st. in Playfair's note on Def. 2, Lib. 1. where, when explaining the relations of a superficies, a line, and a point, to one another, he says "I shall here add, with very little change, the illustration given by that excellent geometer;" and then a quotation of almost *two pages* is gravely introduced, with all the formality of inverted commas, &c. 2dly. In the notes to Lib. 6. speaking of 8 propositions marked A, B, C, &c., he says "The first four of them are in Dr. Simson's edition." 3dly. In the notes to Lib. 7. he quotes about a *page and a half* from Dr. Simson, distinguishing the citation by inverted commas. 4thly. Professor Playfair acknowledges that "The Definition of a plane is given from Dr. Simson, *Euclid's* being liable to the same objections with his definition of a straight line." 5thly. Speaking of Prop. 7. Lib. 1. the Professor says, "Dr. Simson has very properly changed the enunciation of this proposition, &c. &c. His enunciation, with *very little variation* [the Professor means *addition*], is retained here." In this way there are, altogether, about 7 pages ascribed with

sent the whole of Euclid. We know that various plausible reasons may be assigned for this omission. But, while we admit that the first six with the eleventh and twelfth books, contain nearly all the essential propositions in elementary *geometry*, and, therefore, more than all that is needed in many superficial courses of education; we cannot grant that the 7th, 8th, 9th, and 10th books, which include the theory of rational and irrational *numbers*, and are intimately connected with Arithmetic and Algebra, should be uniformly and constantly omitted. In our apprehension, the whole of Euclid's elements is worth preserving; and we regret excessively that Dr. Simson did not go through all the fifteen books with the same learning, science, and

gent candour and liberality to Dr. Simson, the quotations being very scrupulously made, and obviously implying that *nothing else* is borrowed from Dr. Simson. Who could imagine, after observing all this care in the reference of a page or two here and there to Simson as the writer, that more than *a hundred and sixty pages* had been transcribed from him without the slightest shadow of an acknowledgment? Such however is the fact. Professor Playfair speaks often of Euclid, and sometimes of Simson; and it is pleasing to observe what respectful language his feelings of gratitude and policy suggest. It was prudent to appear sensible of obligations to Euclid himself; and natural for an honourable man, like Professor Playfair, to express something of the veneration he must have felt for an Editor of Euclid, to whom he had been indebted for half his book.—As if still farther to prevent un-ary readers from imagining that Simson's translation was palmed upon them for so many pages instead of his own, the Professor uniformly speaks of his alterations from *Euclid*. The obvious method, if he had wished to be clearly understood, would have been to speak of the changes made in *Simson's edition*. Thus, in the Preface, "I have departed from *Euclid* altogether," p. viii. Again, p. 384, "The reason for departing from *Euclid*, &c." And, p. 391, "This remark was published by Dr. Simson, in the first edition of *his Euclid*." A candid mind, however, will naturally reflect, that excessive sensibility often wears the appearance of inattention; that the warmest gratitude, as well as the deepest grief, is usually dumb; and that, consequently, after borrowing Dr. Simson's language, and manner, his diagrams, capitals, commas, and periods, his elegancies and inelegancies, it is probable the Professor felt quite overcome with the weight of his obligations, and adopted the sentiment of his poetical countryman,

Come, then, expressive silence, muse his praise!

we must observe that this probability would appear still greater, if it should be true that the Professor, so far from being guilty of the basest plagiarism, feels an extreme antipathy to the crime, and has been misled by it into a very illiberal, unmanly, and *unjust* insinuation against Professor Vince, in the *Edinburgh Review*, No. 29. p. 10.

acumen, which he displayed so admirably in the execution of his limited task. Professor Leslie's opinion, however, is widely different from ours. He seems to consider the *Elements* of Euclid as unworthy of preservation at all: in his estimation they constitute, altogether, a very incomplete, and certainly not "a *finished* production." "That admirable work," he observes, "was composed at the period when geometry was making its most rapid advances, and new prospects were opening on every side. No wonder that its structure should now seem *loose and defective*." Having thus candidly furnished us with his reason for making a new book, the author proceeds in the following terms.

"In adapting *it* [the *Elements*] to the actual state of the science I have therefore endeavoured carefully to retain the spirit of the original, but have sought to enlarge the basis, and to dispose the accumulated materials into a regular and more compact system. By simplifying the order of arrangement, I hope to have considerably smoothed the toil of the student."

When Mr. Leslie proposes 'to enlarge the basis' of Euclid's 'structure', he of course intends to do it without taking the structure down; a process which would be found rather difficult, we believe, in England, though it may be easy enough to an Edinburgh professor. Mr. Leslie has probably some peculiar sleight of hand method for performing this operation; for he talks of 'retaining the spirit of a structure', and this spirit of a structure he afterwards informs us is 'a contexture,' in which 'we may discover the influence of that mysticism which prevailed in the Platonic school.' Of this sort of leger-de-main, it seems, Euclid was deplorably ignorant; not being able, as we learn from Professor Leslie, 'to grasp the subject with a steady and comprehensive hold:' and, in fact, we think it very questionable whether grasping structures, contextures, and spirits, was an employment in which he was at all qualified to succeed. We shall proceed, however, to describe the general nature of Mr. Leslie's work, and then sketch a few of its particular excellences, before we enlarge upon the elegance of his style. This is no every day task: we trust 'the labour of condensing the scattered materials' (as Mr. Leslie expresses it,) 'will be duly estimated by those, who, taking delight in such speculations, are admitted at once to a rich and varied repast.' From a comparison of this sentence, and one already quoted, we learn, *en passant*, that 'materials,' when 'accumulated' form a *spirited structure*, but when 'condensed' a *varied past*.

It will be expedient to describe, first, the plan according

ing to which these 'materials' are put together. The volume now laid before the public, as Professor Leslie informs us, is 'the first of a projected course of Mathematics.' The subjects treated of, are Geometry, including Geometrical Analysis, and Trigonometry. The *Elements of Geometry* are comprehended in six books. Of these the first two books relate principally to parallel lines, triangles, and quadrilaterals; the third and fourth to circles, lines, and figures, drawn in and about them, their dependent angles, &c.; the fifth to the doctrine of ratios and proportions; and the sixth to *similar* figures, their division by parallel lines, a summary of the chief propositions that depend upon proportionality, and one or two that relate to the rectification of the circle. Such are the constituents of Professor Leslie's *Elements*; by which it will be seen that the geometry of *solids* is omitted altogether. The author, instead of this, has given an Appendix, in two parts; in which several problems in plane geometry are constructed, some by means of the ruler only, others solely by means of the compasses. In the first portion of this Appendix, Professor Leslie acknowledges himself indebted to a scarce tract of Schooten; in the second to Mascheroni's "*Geometrie du Compas*", an ingenious work, well known to most of our mathematical readers. The treatise on Geometrical Analysis is comprized in three books. The first of these is somewhat miscellaneous. In the second and third books, Mr. Leslie professes to have given "all that relates to the ancient analysis in its most improved state, as extended by the labours of Apollonius and his illustrious contemporaries." Of course, these books develop the general principles, constructions, and operations, known to geometers under the terms Data, Section of a Ratio, Section of a Space, Determinate Section, Inclinations, Tangencies, Porisms, and Isoperimeters. When discussing these particulars, the author is necessarily indebted to Euclid, Apollonius, and Pappus, among the ancients; as well as Ghetaldus, Alexander Anderson, Halley, Dr. Simson, and Professor Playfair, among the moderns. The *Elements of Trigonometry* are included in 21 propositions, occupying about 50 pages. Spherical Trigonometry is, of necessity, omitted; since the propositions relative to it could be demonstrated independently of Solid Geometry. The book is preceded by two tables, one, 'of correspondence between these Books of Geometry and the Elements of Euclid,' the other, 'of correspondence of the Elements of Euclid with these Books of Geometry.' From either of these it will be seen, that Mr. Leslie has departed greatly

from the logical order of the Alexandrian Geometer. In our opinion, his deviations are often extremely wanton and ill judged. They give the work, however, an air of novelty, which it would not otherwise possess; and in this quality, indeed, it is by no means deficient. The matter, of course, is in the main very well known; but the manner is frequently original: and, if the artificer may be judged of from his workmanship, Professor Leslie is a most extraordinary and *non-descript* character.

There is great variety in this gentleman's demonstrations. They are sometimes good, sometimes indifferent, sometimes bad; sometimes strict, sometimes loose. The good and legitimate demonstrations are the scarcest. We select one which we really think the best in the book. It relates to a very simple proposition, demonstrated about 30 years ago by Reuben Burrow in his Diary; and since then admitted into some of our elementary books. But to demonstrate even a *very* simple theorem more simply than any other person, is a species of merit which ought not to be withholden from Mr. Leslie on the present occasion. The proposition and demonstration are extracted below: the diagram will be readily supplied by our scientific readers.

‘The difference between two sides of a triangle is less than the third side.’

‘Let the side AC be greater than AB, and from it cut off a part AE equal to AB; the remainder EC is less than the third side BC. For the two sides AB and BC are together greater than AC (1. 16.) take away the equal lines AB and AE, and there remains BC greater than EC; or EC is less than BC.’

We now proceed to the second part of our task, which is, to select a few particular excellences. Upon these we shall not be able to descant so largely as Professor Leslie might expect; but there are other publications in which there can be little doubt of his receiving all the consolation that friendship can bestow. That we may deliver our remarks in some sort of order, we shall follow that adopted by the author himself: beginning with the ‘Principles.’

Here we have the following definition of a straight line, or, rather, of the *idea* of a straight line: ‘The uniform description of a line which through its whole extent stretches in the same direction gives the idea of a straight line.’ What is here meant by *stretching*, and what by *direction*? We have some notion of stretching a cord; but none, certainly of stretching a geometrical line. And as to *direction*, we believe Mr. Leslie would find some difficulty in defining without mentioning a right line in his definition. Direction

cessarily implies rectilineality, and therefore cannot with any sort of propriety be included in the definition of a right line.

'Two points,' we are informed, 'ascertain the position of a straight line.' 'But to determine the position of a plane, it requires *three* points.' Our mathematical Professor should have added, that these three points must not be in one and the same right line. This is an essential condition: neither three nor twenty times three points would determine the position of a plane if they were all in one right line.

We are not told, either in the 'Principles' or in the 'Definitions', what a point, or what an angle is. It is merely stated that we derive the idea 'of divergence or angular magnitude, from revolving motion.' Presently after, we are told, that 'the straight lines which contain an angle are termed its sides, and their point of origin or intersection, its vertex.' All this is very confused. Geometers often speak of the sides of a triangle; but none that we are aware of, before Mr. Leslie, ever talked of the *sides of an angle*. We may expect to hear next of the *dimensions* of a geometrical point. But Mr. Leslie proceeds to tell us, that 'a right angle is the fourth part of an entire circuit or revolution;' meaning, perhaps, to be more simple, accurate, and satisfactory, than all his predecessors. Yet we doubt whether even Mr. Leslie would venture to say, that when a planet had described a right angle in its elliptical orbit, referring the angle to the focus, it had passed through the fourth part of an entire circuit or revolution.' After all this, Mr. Leslie takes care, in his corresponding note (p. 455), to affirm that Euclid's definition of an angle 'is *obscure* and altogether *defective*;' and that 'it is curious to observe the *shifts* to which the author of the *Elements* is hence obliged to have recourse.' This is a discovery which neither Simpson, Playfair, nor any other of our modern geometers can boast of. But to Mr. Leslie it was urgently necessary; for when he comes to prove,—(Prop. 26. of his 2nd Book,) that the angle in a semicircle is a right angle, he actually speaks of the angle *made by two segments of a right line at point in that line!* Well may he censure that definition, according to which "A plane rectilineal angle is the inclination of two straight lines to one another, which meet together, but are *not* in the same straight line:" and well may he remark that 'the conception of an angle is one of the most difficult in the whole compass of Geometry.'

But we must proceed to another definition connected with this difficult subject of angles. 'The retro-flected divergence of the two sides, or the defect of the angle from

four right angles, is named a *reverse angle*.' Let not the unsophisticated reader complain of this as unintelligible; but pause and bend to what follows:—'In the definition of *reverse angle*, I find that I have been anticipated by Stevin of Bruges. It is satisfactory to have the countenance of such *respectable authority*'. It is: even in support of affectation carried to the extreme of absurdity. Richard Brothers had 'the countenance' of 'the respectable authority' of Mr. Halhed.

Between the 10th definition relating to a reverse angle and the 11th definition, Mr. Leslie, who manfully spurns the trammels of order with which poor Euclid was hampered, presses into 'the opening formed by the regression of AB through the points D and E,' and there demonstrates a *theorem*, namely the 15th of Euclid's 1st book. Happy for those, whose comprehension of Euclid's theorem does not depend upon their understanding Mr. Leslie's phraseology!

Def. 12. 'Straight lines which have no inclination are parallel.' This is incomplete: straight lines may have some inclination, viz. to a third line, and yet be parallel to one another. Every mathematician will be aware that this is no hyper-criticism.

Def. 24. 'Of quadrilateral figures, a square has one right angle, and all its sides equal.' Mr. Leslie gives this, because he thinks the common definition, which describes a square "as having *all* its angles right", errs by excess. He adds, 'The original Greek, and even the Latin version, employing the general terms *ὀρθογώνιον*, and *rectangulum*, deviously avoided that objection.' Mr. L. might have avoided it with equal dexterity, by simply calling 'a square a quadrilateral, equilateral, rectangular figure.' One grand object of a definition is not accomplished, unless what is intended by it is put out of all doubt: this is not effected by Mr. L.; for when he says in so pointed a way that 'a square has *one* right angle, and *all* its sides equal,' a novice might hesitate till he could inquire whether it had *only* one right angle;—and thus the justly boasted precision and certainty of geometry would be sacrificed.

We have only to remark farther, with respect to the definitions in the first book, that Mr. Leslie, contrary to the usage of all preceding geometers, makes a *trapezium* a general term than a *trapezoid*; and errs in confining the term *diagonal* to quadrilaterals.

The first proposition is a problem, viz. 'To construct a triangle, of which three sides are given.' The proof of the truth of the construction, is defective and unsatisfactory.

For it is not shewn that the circles employed must necessarily intersect: nor indeed *could* it be shewn, independently of other propositions. A similar observation applies with equal force to the second proposition, which affirms that 'Two triangles are equal, which have all the sides of the one equal to the corresponding sides of the other.' Euclid would have added "*each to each*:" but this old fashioned geometer, as Mr. L. remarks, 'had recourse to' sad 'shifts' for the sake of perspicuity and accuracy. Our Professor has no such scruples: but, very adroitly failing in the demonstration of his first two propositions, by necessary consequence leaves all that follows *undemonstrated*. Such is the way by which the mathematician of the north strengthens the 'loose and defective' '*structure*' of Euclid. And we may add, too, that he at the same time 'enlarges the basis,' by taking away the foundations altogether! 'The science of Geometry,' he tells us, 'owes its perfection to the extreme simplicity of its basis, and derives no visible advantage from the artificial mode of its construction. The axioms are now rejected as *totally useless*, and *rather apt to produce obscurity*!' In our opinion, to take away the axioms, is to remove 'the *basis*' itself, a measure, of which the *extreme simplicity* is by no means a sufficient recommendation: and as to the reason alleged, that this foundation is 'totally useless,' we believe he will find it no easy task to prove his assertion, without admitting either that nothing, or that every thing, in geometry, is self-evident.—

In Prop. 4. Mr. L. constitutes a series of isosceles triangles having all their vertices at one common point: he adds, 'It is evident that this addition is *without limit*, and that the angle so produced may continue to *swell*, and its *expanding* side make repeated revolutions.' We have heard of the swellings of vanity, the swelling of the sea, and the swellings of a wounded limb; but never before of the swelling of an angle! Surely the extravagances of affectation are without limit.'

Prop. 9. The demonstration is defective. It ought also to have been supposed that  $AB$  *exceeds*  $CB$ , and the *reductio ad absurdum* employed.

Prop. 10. is demonstrated by means of a proposition of which we have already spoken, as included in the definitions. Further, the enunciation of the proposition *includes* a definition. This, we think, is not very consistent with what Mr. L. terms 'the Scholastic arrangements.' But what man of genius can endure the shackles of good sense and antiquity? He furnishes similar specimens at pages 27, and 216.

Prop. 11. 'Any two angles of a triangle are together less than two right angles.' The demonstration of this simple proposition is incomplete. And in the demonstration of Prop. 12, 'Every triangle has two acute angles,' there is a *petitio principii*.

Prop. 18. 'The shortest line that can be drawn between two given points, is a straight line.' This simple proposition, which might without any hesitation have been included in the axioms, had not Mr. L. thought them 'rather apt to produce *obscurity*,' is here demonstrated very circuitously by the consideration of limits. Yet Mr. L. himself says in the notes (p. 454.) that 'a straight line has two radical properties, which are distinctly marked in different languages. It holds the same undeviating course,—and it traces the *shortest distance* between its extreme points.' Why, then, does this author attempt to demonstrate a property, which, according to his own account is essentially included in its definition, and even in its name?

Prop. 20. The demonstration is defective. It ought to be shewn that the point C falls below AC. Other loose, defective or unsatisfactory demonstrations, in this book, are those of Prop. 23, 24, and 25.

Book. II. Def. 2. 'The altitude of a triangle is a perpendicular let fall from its vertex upon the *extension of its base*. According to this definition, an acute angled triangle has no altitude. Exact geometrician!

Def. 4. 'The complements of rhomboids about the diagonals of a rhomboid, annexed to either of them, *forms* what is termed a gnomon.' Accurate grammarian!

These 'complements,' as we should also observe, are nowhere defined. Consummate logician!

Prop. 3. The demonstration is incomplete. The indirect reasoning ought to include the case when BE falls *above* BD.

Prop. 4. The deduction in the corollary might be demonstrated *clearly* in a fourth part of the compass.

In this book, the valuable property of a triangle, demonstrated by Simson at p. 128 of his *Select Exercises*, ought certainly to have been included.

Book III. Def. 4. 'A straight line is said to be *inflected* in a circle, when it terminates at the circumference.' According to this definition, a chord of a circle is—a straight line bent for this, we submit, is the meaning of the word 'inflected'. The same intrepid defiance of custom and etymology, occurs also at pages 192, and 207, where the Professor speaks of 'straight lines *inflected*'; but we have sought in vain for an instance of the corresponding phrase, 'curved lines *straightened*.'

Prop. 7. The proof is not sufficiently general : for DE may be drawn from some point in AB, when the demonstration will not hold—at least, without an additional diagram.

Prop. 8. The third figure destroys the generality of the corollary.

Prop. 13. In the diagram, FC should be less than CG.

Prop. 23. In the enunciation of this theorem, Professor Leslie has tacitly admitted Euclid's definition of an angle, which notwithstanding, at p. 455, he calls 'obscure and defective.'

Prop. 26 we have noticed above.

Prop. 28. 'The perpendicular at the extremity of a diameter is a tangent to the circle.' In the demonstration of this theorem, the Professor has brought a certain line of the name of HBG into a sad predicament ; it seems to have been confined in a sort of lock-up-house, denominated a circle, and we are told it 'would again meet the circumference before it effected its escape !' The Professor appears to us to have been placed pretty much in the same predicament ; having no chance, in the mathematical world at least, of effecting his escape from obscurity except by meeting derision.

Book IV. Prop. 12. In the construction of this problem, angles are said to be "adjacent," which are removed at the greatest possible distance from each other. But this, we suppose, is conformable to "the Scholastic arrangements."

Prop. 13. might be demonstrated more simply. In Prop. 8. we read of 'acrescent triangles,' of which we cannot be supposed to know any thing, having never been introduced to them before. Perhaps it is these triangles that have the swell-angles.

The construction of Prop. 20, is described with the Professor's usual felicity of phrase ; the student is told to 'repeat the equal triangles about the vertex O.' This repetition of triangles is not at all necessary.

Book. V. in Mr. Leslie's Elements, like Book V in Euclid's, is devoted to the subject of Ratios and Proportions. But the Alexandrian is prodigiously excelled by the Scotsman, in point of accuracy and perspicuity. His account of proportion may serve for an example :

'Quantities viewed in pairs, may be considered as having a similar composition, if the corresponding terms of each pair contain its measure equal.'

Two pairs of quantities of a similar composition, being thus formed the same *distinct aggregations of their elementary parts*, constitute a *proportion*.'

It is actually of this sort of explication, that our author says, 'the view which I have given of the nature of proportions, in the fifth book, will, I flatter myself, be found to re-

move the chief difficulties attending that important subject !

Props. 1 and 2 are, 'The product of a number into the sum or difference of two numbers, is equal to the sum or difference of its products into those numbers : ' and, 'The product which arises from the continued multiplication of any numbers, is the same, in whatever order that operation be performed.' In demonstrating these, our geometer 'views' the 'units contained in'  $A$ ,  $B$ ,  $C$ , &c. as known : but, suppose  $A = \sqrt{2}$ ,  $B = \sqrt[3]{3}$ ,  $C = \sqrt[4]{5}$ , &c. how will this kind of proof hold ? Certainly, not at all. Thus, then, the 'basis' (to adopt Mr. Leslie's most favourite term) giving way, the 6th proposition, and all the dependent part of 'the structure,' fall into ruins. So much for our author's method of 'removing the chief difficulties,' and chasing away the 'obscurity that' confessedly pervades the fifth book of Euclid !

We must now proceed, as Mr. Leslie says, 'to survey the contours of the distant amphitheatre' in the sixth book. Here the 1st proposition, that 'parallels cut diverging lines proportionally,' is not strictly demonstrated ; for the Professor affirms that 'incommensurables may be expressed numerically to any required degree of precision ;' an assertion, which we need not be at any pains to refute.

Prop. 11. 'A straight line which bisects, either internally or externally, the vertical angle of a triangle, will divide its base into segments, internal or external, that are proportional to the adjacent sides of the triangle.' This proposition, though true enough when Anglicised, is, we believe, perfectly unintelligible as enunciated by this desperate adventurer after originality. In the demonstration, we are told expressly that *equal angles are straight lines !* The assertion, that 'the constant difference  $AC$  between' certain 'distances must always bear a sensible relation to them,' is not true.

Prop. 17. Cor. 1. It should be added, that  $AC : CB :: AB : BD$ . For this is a very useful property, flowing naturally from the theorem.

Prop. 20 'To divide a straight line, whether internally or externally, &c.' Had not our author been possessed with sort of nervous antipathy to established phrases, he would have said, To divide a straight line or its continuation.

Prop. 35. 'The arcs of a circle are proportional to the angles which they subtend at the centre.' In demonstrating this theorem, Mr. Leslie supposes one of the angles  $AC$  divided by continual bisections till an angle  $ACa$  is obtained 'less than any assignable angle : ' he then applies this infinitesimal

esimal of an angle  $ACa$ , or one equal to it  $BCb$ , repeatedly, till 'by its multiplication it fills up the other angle  $BCD$  nearer than by any possible difference,' and thus infers the equality of the ratios of the arcs  $AB$  and  $BD$ , and the angles  $ACB$ ,  $BCD$ . Now, we have to remark respecting this strange kind of demonstration, that if the angle  $ACa$  (which we will call  $I$ ) is less than any assignable angle, no multiple of it can be equal to a finite angle  $BCD$  or  $C$ : for suppose  $m$  times  $I$  to be equal to the known angle  $C$ , then is  $I$  equal to  $\frac{C}{m}$ , a known quantity, and *not* less than any assignable

angle. This demonstration is therefore contradictory and self-destructive; and, consequently, all the propositions that depend upon it are *undemonstrated*.

Prop. 39. 'The circumference of a circle is proportional to the diameter, and its arcs to the square of that diameter.' The truth of this proposition is inferred from the inscription of polygons of 6, 12, 24, &c. sides in the circle. 'Proceeding thus,' says the Professor, 'by repeated duplications, the perimeters of the series of polygons which emerge in succession, will continually approximate to the curvilinear boundary which forms their ultimate limit. Wherefore this extreme term, or the circumference,' &c. All this is excessively loose and ungeometrical. Does approximation characterize identity? If the writer of this article were to travel from London to Edinburgh he would 'continually approximate to' the author of this book; but the Reviewer would not therefore become the Professor, nor could the qualities of the latter be with any fairness ascribed to the former. If the reasoning of Archimedes in his celebrated treatise, *Κυκλον Μέγεθος*, had not been far more strict and logical, it would scarcely have survived its author.

Prop. 38. Here Mr. Leslie gives a concise approximation to the quadrature of the circle, which he says 'was first published, at Padua, in the year 1668, by my illustrious predecessor James Gregory.' It should be observed, however, that the corollary to the proposition from whence this quadrature is made to flow, is not James Gregory's; and further, that it is inadequately demonstrated, being effected in the loose manner adopted in Prop. 35.

In the three books on Geometrical Analysis our Professor scrupulously preserves consistency of character, being as loose and defective' as in other parts of his work: but as we have not room to augment our selections under this head, we must only say, generally, that in many instances he omits the *synthesis*, which necessarily renders his solutions incom-

plete ; and that in many others what he presents as demonstrations, are, in fact, no demonstrations at all.

Let us now pass to the Elements of Plane Trigonometry, a science, it seems, which depends upon 'that universal standard derived from the *partition of a circuit* !' We leave our ingenious readers to decypher this riddle ; and proceed to observe, that, out of *five* definitions, the 1st and 4th are expressed in defective language. Farther, our author says p. 406, an 'arc may, by a *simple extension of analogy*, be conceived to comprehend innumerable other arcs.' This simple extension of *analogy* we certainly do not understand but we think we understand that the learned author writes ungrammatically, when he adds, in the same page, 'the sine or tangent of an arc  $a$  ARE the same with the sine or tangent of any arc  $n. 360^\circ + a$ .'

Of the five first propositions, the demonstrations are every one incomplete and unsatisfactory. Thus, in the first proposition, which affirms that 'the rectangle under the radius and the sine of the sum or difference of two arcs, is equal to the sum or difference of the rectangles under their alternate sines and cosines,' it is not enough to demonstrate its truth when the sum of the arcs  $A$  and  $B$  is less than a quadrant ; it is, likewise, necessary to establish it, not only when  $A+B$ , but when either  $A$  or  $B$ , or both, exceeds a quadrant. Mr. Legendre, a mathematician to whom Mr. Leslie refers, has demonstrated this theorem in its utmost generality at p. 343 of his "*Elemens de Geometrie et Trigonometrie*," 5th edition. The demonstrations of the succeeding four propositions in Mr. Leslie's book are defective for like reasons.

Prop. 10 has a corollary, the object of which is not specified and can hardly be guessed. The table of solutions at Prop. 10, does not contain the simplest rule in the case when the three sides of a plane triangle are given to find an angle : and, in the well known ambiguous case, Professor Leslie does not point out the limits between which the ambiguity exists.

We have thus endeavoured to display the merits of the author, as a mathematician, in a proper light. We might have added greatly to the preceding selection of the Professor's beauties ; but, as our patience began to tire, we could not but sympathize with our readers, who will doubtless be more than satisfied with the *materials* of this second course of our rich and varied repast.

We now proceed, lastly, to establish incontrovertibly, by proofs drawn from the volume before us, the truth of

avourite notion with this author (as well as with ourselves,\*) and which we shall beg to state in his own words :

'Abstract pursuits will be found nowise unfriendly to the cultivation of elegant literature, or incompatible with the *most vigorous play of imagination*.'

No, truly. Who but a man with the most vigorous play of imagination would ever think of a 'retardation' which 'itself gradually *relaxes*'? (p. 427.)—or would ever speak of algebra, the cultivation of which was carried to a great height by Diophantus nearly 2000 years ago, as 'having got up *prematurely*'?—or would preface an explanation of mathematical truths with such rhetoric as this?—'To view the matter in its true light, we should endeavour previously to dispel that *mist* which has so long obscured our vision.' (p. 463.)

The ingenious description of what Theory does, is, in spite of its elegance, exceptionable on the ground of ambiguity. 'Theory', says the brisk Professor, p. xii. 'soon *descends* to guide and assist the operations of practice;' but she neglects to inform us whence she came, or whither she goes. Not being accustomed to geometrical tropes and conundrums, it is with the greatest diffidence we hazard the following guess at the meaning of this eloquent and facetious professor; *Theory* is a lady who usually employs herself in the parlour, but sometimes goes down into the kitchen, which is one or two stories lower, in order to 'guide and assist the operations of *Practice*' her cook.—*Si quid novisti rectius*, &c. In panegyricizing Geometry itself, our readers will conclude that the Professor is more than commonly brilliant and impassioned. 'That science,' he says, 'is supereminently distinguished by the luminous evidence which constantly attends every step of its *march*.' (p. 2.) Our only objection to his account, is its inconsistency. We well know that Geometry bears a striking resemblance to a marching regiment, and for this very reason we disapprove of its being accompanied by *evidence* however luminous; a good band of music would be much more appropriate, and much better suited to the martial spirit of the times. The Professor will not take sight of this hint, we hope, when he gratifies the public with an improved edition; the alteration could not injure the sense of the passage, and would certainly give it a striking air of originality.

'It is the nature of mathematical science,' says Mr. L. 'to advance in *continual progression*,' [and by this, we presume, it is 'supereminently']

\* See Ecl. Rev. Vol. V. p. 154.

ly distinguished' from all other sciences.] 'Each step carries it to others still higher. As its *domain swells* on the sight, new relations are described, and the more distant objects seem gradually to approximate. But while science thus enlarges its bounds, it likewise tends uniformly to *simplicity and concentration*,' [which are, manifestly, quite compatible.] 'The *discoveries* of one age are, perhaps in the next, *melted down* into the mass of elementary truths.' p. xi.

Exquisite ! Let us review the inimitable graces of this passage. *Progression—step—others much higher—domain—swell—simplicity—concentration—discoveries—melted down—mass.* Surely the Professor must have observed what a fascinating charm a little *sweet confusion* imparts to the cheek of beauty or he never could have thought of employing it to adorn the language of philosophy. Who, that is ambitious to acquire a 'most vigorous play of imagination,' would not study geometry under such a Professor !

It would be inexcusable not to add a few more examples of the Professor's eloquence.

'Geometry takes a more *limited view*, and selecting only the general property of magnitude, it can, from the extreme simplicity of its basis safely *pursue* the most *lengthened train* of investigation, and arrive with perfect certainty at the *remotest conclusions*.' (p. 1.)

As the Professor justly thinks it enough to give us rhetoric, without also giving us understanding, we must refer our curious readers to that gentleman himself, if they wish to know what he means by the basis of a view, or how extreme simplicity of basis affords any peculiar facility for taking long journeys in pursuit of investigations or for arriving at remote conclusions.

'He [the student] is thus placed on a commanding eminence [the hill of *Proportion*]; from which he views the *bearings of the objects below*, surveys the *contours of the distant amphitheatre*, and describes the *fading verge of a boundless horizon*,' [that is, the verge of a horizon without verge.] p. 175.

'The founders of mathematical learning among the Greeks were generally *tinctured* with a portion [query, *portion* ?] of mysticism, transmitted from Pythagoras, and *cherished* in the school of Plato. [What was cherished, the tincture or the portion ?] By the later Platonists, who flourished in the *Museum* of Alexandria [being there preserved, we presume, like lizards and serpents in the late Leverian Museum], it was regarded as a pure intellectual science, far *sublimed above the grossness of material contact*. Such metaphysics could not impair the *solidity of the superstructure* [or perhaps 'the spirit of the structure'], but contribute to perpetuate some mistaken *conceptions* and to give a wrong turn to philosophical speculations. It is full time to *restore the sobriety of reason*.' (p. 453.)

It is, indeed. We shall, therefore, exhibit no more

this ridiculous frothy verbiage. Professor Leslie is certainly not destined to become a fine writer; nor, without much reformation, a very accurate geometer. We would earnestly exhort him, if he wishes to obtain a character with the judicious part of the public, as a philosopher, a scholar, or a man of taste, before he prepares any thing else for the press to adopt the prudent resolution of Biron in *Love's Labour Lost*:—

“Taffata phrases, silken terms precise,  
 “Three-pil’d hyperboles, spruce affectation,  
 “Figures pedantical; these summer flies  
 “Have blown me full of maggot ostentation:  
 “I do forswear them.”

Art. II. *Histoire des Inquisitions Religieuses, &c.* The History of the Religious Inquisitions of Italy, Spain, and Portugal; from their Origin to the Conquest of Spain. By Joseph Lavallée, Chief of the 5th Division of the Grand Chancery of the Legion of Honour, Perpetual Secretary of the Philotechnic Society of Paris, &c. &c. 2 Vols. 8vo. pp. 815. Paris, printed. 1809. Price 1*l.* 4*s.* Deconchy, Dulau, &c. London.

THE heads of the Romish hierarchy, aware that the fabric of their power, however awful and imposing its aspect, was weak at the foundation, have at all times been fertile in devices to conceal its defects, and stop the progress of its dilapidations. In addition to the measures which they were compelled to adopt by temporary exigencies, they planned and instituted various permanent establishments, calculated at once to extend, and perpetuate, their authority. Of these, the Inquisition and the Company of Jesus were the most important. Last in the order of time, the Jesuits were the first to fall before the rising spirit of mankind; and the Holy Office, after maintaining a long struggle against universal abhorrence, has now yielded an easy victory to the invader of her last retreat. The author of the present work has turned this incident to good account, and we have been alternately amused and enraged at the surfeiting doses of adulation with which he has supplied the ravenous appetite of his master.

The Inquisition is no more; humanity owes this benefit to the latest of heroes... The Hero whose genius has vanquished this foe to France... This blessing was reserved for *the days of glory and heroism*; was decreed that Castile should receive it from the hand of Napoleon... The august kings Joseph Napoleon and Joachim Napoleon scattering knowledge, benefits, and new life... Napoleon with a single word has avenged Heaven, Monarchs and Men, *he has relieved the earth, let the earth bless him... Spaniards! when your children read*

*your history, all your public places will be covered with the statues of the hero who has given you vengeance and liberty !!! The benefactor of the world, &c. &c. !!!*

Now, although we are disposed to give the 'illustrious' Napoleon and the 'scarce less illustrious' Joseph, every praise that we can in conscience afford, yet it cannot have escaped the observation even of the servile Lavallée, that the destruction of the Inquisition was a deed much less of humanity than of policy. It is, however, a matter of considerable doubt whether this desirable event would have taken place, so soon at least, under the old government of Spain; and cordially as we execrate the artifices which prepared, and the cruelty that has nearly effected the Spanish revolution, we accept with gratitude, even from the hands of 'the greatest of heroes,' the suppression of the Religious Houses and the Bloody Tribunal.

Lavallée states himself to have been engaged in this undertaking long before the conquest of Spain. Of this we have some doubt; the work has every appearance of a hasty compilation, and we are inclined to suspect that it was intended principally, if not entirely, as a vehicle for the praises of Bonaparte. In the first volume, the author has traced the origin and progress of the Inquisition, and concludes this portion of the work with an '*exposé* of its general principles, its organization, its laws, its internal economy, its secret tortures, and its public ceremonies. He has employed the second volume in exhibiting 'the constancy of its progress, the uniformity of its principles, the unity of its object, in Asia and America, as well as in Europe, not by reasoning, but by facts, by the history of a crowd of wretches dragged before its tribunals.' We shall give a slight sketch of the first part, and indulge ourselves in a few observations on the second.

The martyrdom of Arnold of Brescia, who had suffered at the stake for exposing the errors and vices of the Romish priesthood, instead of intimidating his disciples,

'produced an opposite effect; it increased their aversion to Rome, and from the public and secret preaching of their new religious notions, sprang the Waldenses and Albigenses... Almost all the country situated between the Garonne and the right bank of the Rhone, was peopled by these new sectaries... History uniformly represents them as good citizens, as faithful subjects, as excellent parents, as rigid observers of their word, unassuming, laborious, and practising the precepts of the Gospel.'

Adrian IVth passed sentence upon Arnold; and Innocent IIIrd published a crusade against the Albigenses, the direct

of which was intrusted to the bigotry and barbarity of Dominic. He eagerly engaged in the task, and 'let slip' the blood hounds of papal vengeance on the states of the Counts of Toulouse, Beziers, Foix, and Comminges. Simon de Montfort, the general of the crusaders, is thus spiritedly portrayed in the present work.

'In times nearer to our own, Simon de Montfort would have been a fit associate for those famous adventurers, whose rapacity, avarice, barbarity, and thirst of blood, filled up the measure of the miseries of the New World. His proportions were gigantic, his strength equal to his commanding stature, and his vigorous constitution enabled him to encounter the greatest fatigues, and the most distressing privations. He had learnt the trade of war in the Syrian crusades. In these distant expeditions, the results of blind and irrational devotion, he had acquired that tendency to fanaticism which the legates of the Pope deemed indispensable in the commander of their army. Born in Camps, living in an age when ignorance was the portion of the great, fighting was his only science, massacre his most gratifying relaxation, and plunder his inexhaustible resource. He held the feelings of compassion in contempt. No chivalric virtue redeemed his ferocity; and his courage was the savage insensibility of a chief of banditti. Deaf to the voice of nature, ignorant of the rights of nations, faithless in treaty, regardless of his oath...such was de Montfort. He was charged with the interests of Heaven, because he had all the vices of the impious; and his intemperance opened the path of glory to him who in better days would have disgraced the scaffold.'

By treachery or force, de Montfort was every where victorious; he expelled Raymond and his allies, and took possession of their states, which he retained for four years. At the expiration of that term, Raymond, assisted by the inhabitants, made a desperate and successful effort to recover himself of Toulouse. De Montfort again besieged it, and fell in an attempt to carry it by storm. The war never continued, and finally terminated in the dispersion of the Albigenses, and the establishment of the Inquisition under the superintendence of the order of St. Dominic. It was at first instituted for the conversion of heretics by preaching and instruction, and its members were, besides, charged to observe the conduct of bishops, magistrates, and nobles towards the enemies of the church of Rome. But its powers were rapidly enlarged. Its chiefs were permit-

to grant indulgences, to publish crusades, to excite sovereigns to war, to put themselves at the head of armies, and to march wherever there were heretics to be exterminated. From the increase of power, it will be inferred that the end of the war of the Albigenses was not the dawn of peace for the south of France; on the contrary, the beginning of days of misery; their per-

secutors only changed their weapon, and replaced the sword of war, by that of the scaffold... It is worthy of remark, that France, destined to be the only great Catholic state, where the Inquisition was denied admittance, was, by a singular fatality, the first prey of inquisitors.'

The final establishment of this pest in France, was prevented by the firmness and address of the illustrious l'Hopital, seconded by Marillac, archbishop of Vienne, and Montluc, bishop of Valence.

Italy, after a faint struggle, yielded to the tyranny of the Inquisition. A general insurrection of the people prevented its extension to the kingdom of Naples. The Doge and Senate long resisted the repeated and urgent intreaties of several successive Popes, for its introduction into the Venetian states; and, when at last they gave a reluctant consent, it was clogged with so many stipulations and restrictions, and the conduct of the Inquisitors was observed with such jealous and vexatious vigilance, that the concession never produced any considerable benefit to the Roman see.

In Germany, every effort to introduce it was unsuccessful.

'Of the different cities into which the popes had, as it were in stealth, insinuated their inquisitors; some did not give them time to make good their standing, and drove them out as soon as they came in; others abstained from open resistance, but refused to have any intercourse with them, forbade the merchants to furnish them with necessaries of life, and thus compelled them to withdraw. In other the first acts of the Inquisitors were the signals of universal commotion, they were assailed with threats and curses, and surrounded with dangers, and a concern for their own safety forced them to depart ever.'

The Inquisition was established in Spain by the ambition of Torquemada, and protected by the policy of Isidore Menes. The first, a Dominican, had in view, for his order, the religious government of Spain; and, for himself, a seat in the sacred college. Ximenes, a Cordelier, a man of great and commanding genius, of unbounded ambition, and always very scrupulous in the means by which he attained his purposes, considered the Inquisition as a ready and convenient instrument for controuling the turbulence of the great, and the insolence and licentiousness of the nobles. Of its ravages in this unhappy country—where the Duke of Medina Celi enumerated among their privileges the standard bearer to the Holy Office, and the Marquis of Poilar claimed the envied title of its hereditary protector in the kingdom of Toledo—we need not speak.

are universally known. In our own country, their history is among the first elements of education; and the feelings of horror and indignation which they excite, are some of the earliest and most sacred impulses of the heart. Every feature of this establishment is marked with infernal characters: its object, —to maintain a system of superstition, tyranny, and priestcraft: its means,—the destruction of social confidence, the suppression of all freedom, the perpetration of all barbarities; its spirit,—proud, sullen, subtle, remorseless; implacably vindictive, unsparingly cruel, immeasurably ambitious. Such was the Inquisition in the countries where its genuine nature had room to display itself. With what triumph do we say, Such *was* the Inquisition!

In Spain, two corporations were instituted, the *Cruciata* and the *Hermidad*, which were singularly serviceable in promoting the views, and confirming the despotism, of the Inquisition. The first included the higher clergy, and nearly all the nobility of Spain; they were united for the purposes of preserving the purity of the catholic faith, and of exercising a system of general *espionage* in subservience to the Holy Office.

‘The *Hermidad* was a body of runners or spies constantly upon the alert, not only in the cities, but also in the towns and villages. There was no hamlet so small as to be exempt from these miscreants. They were an army of men collected together by idleness and want. Ignorant victims of that same Inquisition whose fatal influence had annihilated every species of industry, they served for a few maravedis the stepmother who had shut them out from the means of gaining an honorable livelihood.’

The emperor Charles Vth met with such resistance, in attempting to impose this terrible tribunal upon his Flemish subjects, as soon induced him to abandon the design.

‘After him, Philip II<sup>nd</sup>, more crafty, sanguinary, and obstinate, resumed the project of compelling these same countries to submit to the Inquisition, without any restriction, and in all its horror. He was deaf to the just and energetic remonstrances of the states. He insisted upon obedience, and revolt broke out. Thus the interest of the Inquisition, whose birth had formerly cost so much blood to Italy and France, again provoked a war of more than 60 years duration, convulsed Europe, devoured myriads, rendered the Spaniards universally hated, remembered one of the most powerful monarchies of the age, and deprived its king of the richest portion of his dominions.’

It is remarkable that the first establishment of the Inquisition, in Portugal, was effected by a fictitious Bull. It answered the end, however, as well as if it had been ge-

nuine; nor was its design even frustrated by its detection. It was in this country, that its influence became perhaps the most powerful and destructive. Even the enormities it committed in Spain, were, if possible, exceeded in Portugal. Heretics, and fancied heretics, were persecuted with unrelenting ferocity. The native cruelty of the human heart, the degrading efficacy of superstition, and the unspeakable horrors of intolerance, were here exhibited at once in the hideous spectacle—of a deluded populace urged on by a sanguinary priesthood to conciliate the favour of Him 'who delighteth in mercy', by investing him with the attributes of Moloch, and offering human victims at his feet.

The second of these volumes consists, principally, of anecdotes relating to the conduct of the Inquisition towards individuals. Few of these are authenticated, many are suspicious, and some of them we do not hesitate to pronounce fabrications. Of the latter description, is the story of Don Estevan and his slave Zamora. As a romance, it might pass very well; the situations are striking, and the escapes are managed to the breadth of a hair. But if the Sieur Lavallée expected us to receive it as matter of history, he should have produced some better authority than his own. Indeed he paints so well, that he is disposed to paint much too freely. We were highly interested by his detail of the secret artifices and arguments employed by Torquemada to influence the mind of Isabella in favour of the Inquisition, but, unfortunately, as he has no where informed us to whom the Dominican indiscreetly communicated this curious information which it was of so much importance for him to conceal, and as it does not appear that his royal penitents ever detected his hypocrisy, we cannot pretend to have been greatly edified. There is, besides, especially in the first volume, a good deal of irrelevant matter. It is surely refining too far, to discover the Inquisition in the destruction of the Templars, and the infamous persecution of Urbain Grandier, in the secret Tribunal, and the judicial murder of the Maid of Orleans. Most of the instances here cited were measures of state policy; and such as were the result of a bigoted and intolerant spirit, and therefore referable in part to a common source with the Inquisition, were obviously unconnected with it,—originating only in the exigency or the rancour of the moment, and issuing only in the destruction of their immediate victims.

M. L. seems to be but ill informed with respect to English literature; for he very gravely gives his reasons for believing the celebrated romance of Gaudenzio di Lucca

generally attributed to the illustrious Bishop of Cloyne, not to be legitimate history; and concludes with the opinion, the result of '*an attentive reading*,' that 'it appears to be the work of some hidden friend to the Inquisition, and that it was much less his object to give a true account of it, than to justify and extenuate its character. Romances are universally read, and the author, by adopting that form, best fulfilled his intention.'—Poor Berkley!

On the whole, the work is superficial, but spirited, romantic, and amusing. It contains scarcely any thing that has not been long familiar to most classes of readers, and is deficient in many particulars of considerable importance. One of these we will mention, than which nothing can more strongly paint the wanton cruelty of the Inquisition, and its baneful influence upon the human mind. We take it from the interesting miscellanies of Michael Geddes. When the victim is fastened to the stake, and the confessor has left him, 'the cry is, *let the dogs' beards, let the dogs' beards be made*; which is done by thrusting flaming furzes fastened to a long pole against their faces. And this inhumanity is commonly continued until their faces are burnt to coal, and is always accompanied with such loud acclamations of joy as are not to be heard upon any other occasion; a bull-fight or a farce being dull entertainments to the using of a professed heretick thus inhumanly.' Of this, however, there is nothing in Lavallée. Geddes had been chaplain to the English Factory at Lisbon; and we have obtained a clearer insight into the character and conduct of the Inquisition from his short tract, intitled, '*A View of the Court of Inquisition in Portugal; with a list of the Prisoners that came forth in an Act of the Faith celebrated at Lisbon, in the year 1682*,' than from any other publication on the subject, that we have ever seen. He has added a narrative, obtained by himself from a Jew, who had been a considerable time in the dungeons of the Holy Office, had passed through the regular process of examination and torture, and been liberated on forced confession. The imagination of this man was so powerfully affected by the scenes he had witnessed, and the sufferings he had undergone, that he was firmly convinced, that although Inquisitors 'appeared to be men, yet in reality they were not so, but were bands of fiends sent from hell to assume the shape of men, and all that belonged to them, except their souls.'—The Tracts, historical and argumentative, of Geddes, are chiefly on the subject of Popery, and are among the most interesting collections we are acquainted with; they are complete, as far as we know, in seven octavo volumes.

The documents, dated October, 1808, with which Lavallée concludes his second volume, are the most important part of the work. *If authentic*, they prove that the spirit, the principles, and the energy of the Inquisition had suffered little from the general progress of knowledge among mankind, and would yield only to the stroke of an equally arbitrary and unprincipled, but mightier and more intelligent power.

M. Lavallée has acknowledged his obligations to Limborch but has by no means superseded the necessity of reference to that laborious and authentic writer. He who would skim the subject, may amuse himself with the lively Frenchman; but to master it, he must study the somewhat tedious, but instructive pages of the Dutch professor.—A translation of these volumes into English is stated to be in the press.

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Art. III. *The high Price of Bullion a Proof of the Depreciation of Bank Notes.* By David Ricardo. 8vo. pp. 52. Price 2s. Murray. 1810.

**T**HE subject of this tract has recently assumed unusual importance, from the phenomena which our circulation has of late exhibited. The almost total disappearance of specie; the want even of small coins to pay the balance of one pound notes in petty payments; a degree of difficulty and inconvenience from the want of change, such as the business of this nation has very seldom suffered; a premium to no trifling amount actually though clandestinely paid for guineas exchanged against bank notes; the market price of gold permanently, and to a very unusual degree, above the mint price, affording thereby an effectual temptation to the melting down of the gold coin; and a permanently unfavourable state of exchange with foreign countries; these are all circumstances the existence of which cannot be denied, and which indicate as it is equally impossible to deny, something unusually diseased in the habit of the agent of our currency.

This pamphlet is an attempt, and by no means a feeble one, to trace the malady to its cause. That cause, the author imagines, is not far to seek. It is to be found in the state of the paper currency. That currency has fallen into disease by excess. It labours under the effects of a plethora. It has been dieted so intemperately by its guardians and supporters, that it is swelled and bloated into feebleness; not only into a comparative unfitness for its proper functions, but into a danger of apoplexy, or of bursting a blood vessel.

But this unwise regimen, this mistake or misconduct on the part of those on whom the treatment of the patient depends, is no usual effect. Many were the years during which steady temperance, enjoined by necessity, suffered

variation. The wisdom of the steady old course, and the imprudence of the new one, have not been exhibited in the order we have seen—the wisdom first, the folly afterwards as an improvement upon it—without adequate cause. While it was the interest of those who were the masters of the choice to tread in the road of prudence, they steadily adhered to it; when by very strong means it was rendered their interest to travel in a different road, no wonder they have been drawn aside.

The fact, according to our author, is this. The Bank of England, as long as she continued subject to the obligation of paying her paper in cash on demand, was so immediately visited with loss the moment her paper became excessive, and by its excess depreciated, that she had always a prompt monitor and an effectual motive to avoid so mischievous a proceeding: The Bank of England, however, the moment she became exempt from the obligation of paying her paper in cash on demand, became, by the same operation, exempt from loss by the depreciation of her notes, and was rendered a gainer by the interest of all the notes which she could put into circulation: The Bank, accordingly, has forced into circulation an excessive quantity of notes; and the effects are such as we witness, and dread.

When the case, indeed, is temperately considered, the wonder is, not that the consequences of a superabundant paper, in the circumstances thus described, have at last and pretty strongly manifested themselves, but that they have not and still more strongly manifested themselves long ago. The prudence and self-restraint of the managers of the Bank (for there has been no other safe-guard), deserves to be ranked in the number of phenomena. It has been infinitely greater than was to be expected; infinitely beyond what in wisdom could have been calculated upon, by those who rashly committed the nation's credit to chances of so doubtful and so threatening a nature.

Every competent judge, we apprehend, will be ready to resume, that the reasonings, by which Mr. Ricardo has undertaken to prove that the high price of bullion is owing to the actual (though not in every case visible) depreciation of Bank notes, sufficiently bear out the conclusion.

No one who has successfully studied this subject, which indeed is by no means a very obvious and easy one, can have any doubt that the price of the precious metals approximates an equality all over the world: neither can he doubt that the peculiar portion of those metals, which is contained in the circulating medium of each country, follows in this respect the laws of the rest. But, if these two points be allowed, the

conclusion, which Mr. Ricardo wishes to establish, follows as a matter of course. It is only necessary for the inquirer to become sufficiently familiar with the meaning of the terms that must be employed in expressing the propositions, to see the consequence, as it were, intuitively.

If gold and silver are, all the world over, nearly of the same value, and can never in any particular place for any length of time be forced much above or below the general level, gold and silver in England must always be very nearly of the same value as gold and silver in other countries. If gold and silver in coin be always of nearly the same value as gold and silver in bullion, the gold and silver in the English coins can never differ in value, except in a very slight degree, from gold and silver in bullion. From this it demonstrably follows, that the *mint price* of gold and silver, i. e. the value of gold and silver in the coins, can never differ but in a very slight degree from the *market price*, i. e. the value in bullion, of these metals. Hence it follows, that the great difference, as it is called, between the market price and the mint price of the precious metals, is an *apparent* difference only, and that appearance a delusive one.

As comprehensive propositions expressed in comprehensive terms are not easily followed in their applications by unexercised minds, it may be useful to trace the phænomena belonging to a particular case. Suppose that an ounce of pure gold is at the mint of England manufactured into 3*l*. 17*s*. 10½*d*. of coins. The ounce of gold in the coins, according to the principle above spoken of as established beyond the reach of dispute, viz. the perpetual and close approximation between the value of gold in coin and the value of gold in bullion cannot be inferior in value to an ounce in bullion. It will naturally and necessarily be somewhat superior to it; as being put in a shape of somewhat greater utility. The natural state of the market or bullion price of gold is therefore, to this amount, which is but a small one, *inferior* to the mint price or the value of the metal in coins. This is not only the natural, but the necessary state; no departure from it, but such a momentary one as has not left time to the strong natural tendency to redress it, can ever take place; every thing else that presents itself as a departure, is *appearance* merely. The price of silver in bars, and the price of silver in spoons, is exactly analagous to the price of gold in bars, and the price of it in coins,—only that the expense of the workmanship necessary to bring silver into the shape of spoons is much greater proportionally, than that necessary to bring gold into the shape of coins; yet who ever heard of a market price and a *spot* price of silver?

Such is the case while 3*l.* 17*s.* 10½*d* in coins actually contains, as it professes to contain, an ounce of gold. Suppose, however, that 3*l.* 17*s.* 10½*d* in coins comes by wearing or any other means to contain less than an ounce of gold, while it still professes notwithstanding to contain an ounce. It is evident, now, that 3*l.* 17*s.* 10½*d* in coins is not worth an ounce of gold in bullion. More in the market will be demanded for an ounce of gold in bullion than 3*l.* 17*s.* 10½*d* in coins. The market price of gold will thus, in *name* and *appearance*, rise above the mint price; but so far is this from being in *reality* the case, that it is solely because the value of the gold in the coins and the value in the bullion are the *same*, that a difference in the market price becomes necessary to correspond with the diminished quantity of the metals which remains in the coins. Nor is there any thing peculiar in the instance of the gold purchase. The coins have declined, in their power of purchasing, to exactly the same degree, with regard to all other commodities. A quarter of wheat cannot be purchased for the same number of pounds, shillings, and pence. It appears to have risen in price. The market price, if we may so speak, has risen above the mint price. But this is not the fact. The price of the wheat, by supposition, has remained the same. It is purchased for the same quantity of gold; but a greater number of coins must be counted out, before that quantity is afforded.

Such, then, are the principles on which the market price of gold depends; such is its necessary coincidence with the intrinsic value of the circulating medium. It remains to be required, what explanation these principles afford of the high price of bullion which has lately been witnessed in the London market. The coins have by wearing, (there having been no change, except of the smaller pieces, since the Bank restriction,) become lighter than the standard, and that to no inconsiderable degree. This accounts for a rise in the market price of gold to a correspondent amount. But the market price of gold has risen greatly above that amount. What is the cause which *this* enhancement should be traced? Mr. Ricardo answers, the excessive issues of paper by the Bank of England. The amount of notes forced into circulation by the Bank of England, under protection of the Restriction Act, exceeds the amount of pounds sterling in gold and silver that could circulate in the country, were gold and silver the sole medium of circulation. The consequence is, a depreciation of those notes; and, as the notes are in fact the circulating medium, a depreciation of that medium. A rise of the market price of gold to a correspondent amount, is the event in

conclusion, which Mr. Ricardo wishes to establish, follows as a matter of course. It is only necessary for the inquirer to become sufficiently familiar with the meaning of the terms that must be employed in expressing the propositions, to see the consequence, as it were, intuitively.

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It must be owned that the first appearance of these facts affords, itself, pretty strong indirect evidence of the truth of the inference. Here is an undeniable excess in the market price of gold; the state of the coins accounts for only part of it; the other part remains wholly unaccounted for; the market price of gold measures the intrinsic value of the circulation; nothing else has operated upon the intrinsic value of that circulation, unless it be the bank notes; the bank notes, therefore, it must be, which have raised the market price of gold; there is nothing else to which the effect can be ascribed. It will be owned, we think, that the links in this chain seem tolerably sound.

The direct proof, however, consists in exploring the operation of an excess of paper; in shewing the effects, which by its own laws it must of necessity produce, upon the phenomenon of circulation. If an excess of paper can be shewn to operate with infallible certainty in the depreciation of whatever currency is subjected to its effects, the demonstration will hardly be considered as less than complete. That such is its operation, is what Mr. Ricardo undertakes to prove.

In the effects of a paper currency, though there is in reality nothing peculiarly difficult or hidden to the inquirer, yet, the points being multiplied, there is of course a degree of intricacy in the statement; and considerable pains are requisite to keep the estimating energy of the mind justly fixed upon a few of them while drawing the inferences which they afford.

The fundamental proposition is — A defined quantity of circulating medium, and a defined quantity of circulating operations to be performed by it, being supposed in any country actually to exist, any addition made to the quantity of circulating medium, while no addition is made to the quantity of operations to be performed by it, must produce a correspondent rise in the price of commodities, or, which is the same thing in other words, a correspondent depreciation in the medium itself. The fictitious case, put by Mr. Hume, affords perhaps the easiest view of the evidence on which this proposition rests. Suppose that England is closed round by *Bacon's wall of brass*, and its people absolutely shut out from intercourse with all other human creatures. Suppose that the circulation is wholly performed by gold and silver, and that the quantity of those metals which it has long possessed is fixed at a certain rate the price of commodities. Suppose that, in this settled state of circulation and prices, the whole money of the country is in one night doubled, every man finding in the morning two guineas, and so on, in his custody instead of one. Here no more commodities exist than existed before; no more, therefore, can be bought. But every

has twice as much money to buy them with; twice as much money will actually be given for them. A correspondent rise of prices, a correspondent depreciation of money, is the inevitable consequence.

Such is the law of an augmented currency; it remains to apply that law to the case modified by the operation of paper, and of such a paper as now circulates in England.

It has already been intimated, that a bank, subject to the obligation of paying her notes in specie, cannot, morally speaking, augment the currency. If she did, depreciation would be the immediate consequence. But as gold and silver in countries which have any intercourse with one another must be always of nearly the same value, the effects which are immediately produced very soon redress the mischief. The market price of gold rises; guineas become in demand; and the notes of the bank are rapidly carried to her for gold.

The links of this chain of consequences are these. By the augmentation of the currency, the value of the gold and silver in the coins, and with it the value of all the gold and silver in the country, is reduced somewhat below its usual standard, that is, somewhat below its value in other countries. But, in that case, the bullion merchants are enabled to make a profit by exporting it. The exportation raises the price of bullion, and the value of the metal both in bullion and in the coins. In exchange for bank notes, however, or in exchange for commodities which are rated in bank notes, the coins, so long as the force of their name prevails over that of their nature, are sunk to the level of the currency. They are more valuable as bullion than as specie. They are of course converted into bullion. Whoever wants bullion purchases a quantity of bank notes, repairs to the bank where he demands guineas for them, and then melts them down. The bank, in this course, receiving for her notes at their first issue only at the rate of the depreciated currency, and being obliged to pay for them at the bullion price of gold and silver, loses upon every note thus issued and retired, at the rate of the whole depreciation which the currency has undergone. This drain soon reaches her the necessity of issuing fewer notes; and, where the number is thus reduced to the due proportion, the depreciation of the currency is at an end.

The case, however, which, in the present instance, we are particularly called upon to consider, is that of a bank exempted, by the force of the legislature, from the obligation of paying her notes in cash. It is evident that, by this means, a bank is effectually secured from the loss and inconvenience, attendant upon the payment of her notes when the notes are depreciated by excess. By exemption from this loss and in-

convenience, she is left to reap a clear profit from keeping the currency in excess. All the other effects of that excess remain at the same time as before. The market price of bullion rises, to maintain its level with other countries; specie being melted, and not supplied, gradually disappears: the coins during a certain time, and within a certain limit of depreciation, continue to exchange, as often as they appear, for bank notes, or for commodities rated in bank notes; gradually, however, a premium comes to be offered for them; and, at last, a fixed difference between paper and specie is the undisguised result.

This interval, between the moment when the market price of gold rises above the mint price, and the time when an avowed discount upon bank notes takes place, is the circumstance on which the difficulties which puzzle most understandings seem to depend. It seems to be supposed, that, if the theory be correct, the moment the price of gold stands above the rate of the currency, the gold coins ought to exchange for their value as bullion, and a discount to appear immediately upon bank notes. The fact however is, that, the theory being true, it can be shewn that the effects could not take place in any other than the order which we actually witness. It is not all at once that the depreciation takes place, and that it rises to the pitch at which it exhibits any sensible effects. When it begins to affect the state of the bullion market, the event is known to but a few. Even when the price of bullion is so high, and has so long been high, as to create much speculation in the mercantile and philosophical circles, very little is known about the circumstances among the great body of the people. They continue to be governed by appearances which have long governed them. The power of a guinea in the market they have long identified, in their conceptions, with the power of a one pound note and a shilling; and till some very direct instigation prompts them to mark the difference, it is not natural for them to apprehend one. Among those who know and possess more in this country there prevails a very laudable delicacy with regard to this subject. It is felt as invidious, to appear among the foremost in demanding the acknowledgement of a difference between paper and specie. It is felt as sure to expose a man to odious imputations, on the part of all those who from selfish or other views assume the patronage of the existing system. From these causes it happens, that the occasional guineas, which a man in the course of his ordinary affairs receives on the level of bank notes, he without much concern parts with on the same terms. It is only by those men whose interest it is to collect them in large masses, that the difference is felt as a

important one, and advantage taken of it accordingly. It requires either a long time or a very material depreciation, provided credit and confidence are unimpaired, to take affairs out of this natural course.

During this time the somewhat curious phenomenon is exhibited, of guineas passing in the ordinary circulation of the country at less than their real value, partly from the ignorance of the people, and partly from the difficulty in ordinary cases of getting them exchanged on other terms. And this is another source of difficulty to the common inquirer. Is not the paper currency, he says, held up by the guineas; not the guineas depreciated by the paper? To this a silencing answer might quickly be rendered, viz. that the guinea is worth more as bullion than as coin. But this is not an explanatory answer,—the sort of answer that on occasions like the present it is always desirable to afford. If we consider that it is that furnishes the standard of appreciation in the even state of any mixed currency, we shall find that it is always and necessarily the least valuable of the articles considered as legal tender. When there are two commodities, by one of which a man is at liberty to pay for the article he has bought, he is sure to give that which he considers as worth the least. As this is done by every man and upon all occasions, it is with the least valuable of the articles that commodities are habitually bought; and it is in the denominations of that article, by consequence, that they are rated. This, in fact, as is acutely remarked by Mr. Ricardo, is the cause of the practical change from silver to gold which has been made in the standard of appreciation in the currency of Great Britain. Subsequent to the time at which the rate of silver to gold was fixed at the mint, silver rose in price considerably more than gold. It became by this means the interest of every man to pay in gold; and thus gold became the standard. And, of course, is the case with bank notes, as soon as the amount of currency becomes excessive. Bank notes are the least valuable commodity; in bank notes every man's payments are chiefly made; and bank notes thus become the standard of appreciation.

Among the objections which are made to this account of the phenomena recently exhibited by the circulation of this currency, one is taken from a supposed drain of the precious metals, to which, by causes very different from any thing affecting the state of our circulating medium, the country has been exposed. The support of our troops abroad required the exportation of large sums in gold and silver. The present state of our intercourse with the continent subjects us to a continued process of exhaustion. The smugglers

bring us the goods of the continent, but are unable to carry back any thing except gold and silver. Such is the representation we have the mortification to hear, from persons of information and thought; such is the representation we hear from people in the situations of power, on which the redress of the evil depends. It is taken by them, and given to others, as a complete solution of the problem.

It involves a total misapprehension, with respect both to the fact and the principle.

What is it that we are told, and with so much triumph from places of the highest authority, on the evidence of the custom house itself, with regard to the fact? Why, this that during the last year our exports, even to the continent of Europe, have been unusually great. They have probably exceeded the usual proportion to the imports. There has been, therefore, no unusual drain of gold and silver to the continent. What has been sent in pay to the army in Spain and Portugal, has been compensated in the usual way by exportation of goods. The men in place ought at least to have known this; ought at least to have been above mistake and delusion, with regard to the *facts* realized under their own eyes and in their own hands. With regard to mistake and delusion on the groundwork of *principle*, experience has taught to feel no surprise, at any thing which happens in that quarter.

Among men of information and thought, however, a conclusion so fairly confronted by the most obvious principles is truly matter of surprise. They tell us that an unusual quantity of gold and silver has, by extraordinary causes, been carried out of Great Britain. The price of gold has accordingly risen. An unusual quantity of gold has been carried into other countries. The price of it in those countries must accordingly, have fallen. In these circumstances it must be the interest of the bullion merchant, to import gold into England, not to export it. But this, by supposition, is contrary to the fact. The price of bullion is above the price of gold at the mint, because gold, it is said, is bought up to be sent abroad.

But another point stands no less formidably opposed to the hypothesis of these speculators. Granting that we have been subjected to a demand for gold, which in this country has raised its price, this enhancement must have attended a portion of our gold which is in the shape of coin, no less effectually than that portion which is in the shape of bullion. It is our guineas which the smugglers take; and in fact our guineas will infallibly travel abroad, either in their own shape or in the easily assumed one of bullion, as often as a profit may be made by the journey. If the precious metals in coin

is demonstrated, on the naked footing of commodities bought and sold for their value,—the metal in the coins, and the metal not in the coins, must always be on a level. According to this principle, which it remains for those gentlemen, if they dislike it, to controvert, no scarcity of gold, no enhancement of its value, can ever occasion a difference between the market and mint price of bullion. Whenever that takes place, it must take place from an alteration in the value of the currency; from something which has made its intrinsic, no longer correspondent with its nominal value. The expression of the market price of bullion, is the expression of its real value. The mint price is, with regard to the currency, in that case a mere name\*.

\* Nothing more is necessary, than a complete understanding of the principles here asserted, in order to account for the various minute appearances, which the state of the market in its momentary fluctuations may exhibit. When these appearances vary from the theory, they are most frequently deceptive; and it would only require an accurate acquaintance with the facts, to see that they are actually the same with the facts on which the theory is founded;—that it is only by some essential circumstance, which the objector is not aware of, that he is led erroneously to question it. Let the theory, however, be ever so just and incontrovertible, the appearances aberration from it will occasionally be real. The general law will occasionally be modified by extraneous circumstances. The principle of gravity, which keeps the planets in their orbit, and the effects of which the sublime movements of the heavenly bodies can be so accurately calculated, is subject to material variation from the friction of the thin air which we breathe. In the price of gold, after the same manner, there are certain limited fluctuations, from day to day, or from week to week, which are altogether dependent upon accidents, and which neither can nor need be reduced to any theory. Those states only, that are to a certain degree fixed, can depend upon fixed causes.

It is evident, that a minute and inconsiderable portion of any great mass of commodities, when that portion is put into a very particular shape, and applied to very particular purposes, may be acted upon by circumstances, and subject to limited variations, which do not apply to the rest of the species. This is to an eminent degree the case with regard to coins, compared with gold and silver in the mass. If these obey the general law within a certain sphere, it is all that the truth of the theory requires.

There is so much uncertainty, for example, with regard to the present price of guineas in the English market, as to occasion a considerable diversity of opinion. Some inquirers assert, that, though a premium upon guineas of two or three shillings a piece existed some weeks ago, it has now ceased to exist. Others maintain, that the same premium which existed then, exists to the present hour. Without waiting to examine into the matter, it will suffice to shew, that, as the ground of any objection to the doctrine here laid down, it is totally immaterial.

The price of gold bullion, at a medium, has for some very considerable time stood at 4*l.* 10*s.* per ounce; allowance being made for temporary

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Such is the nature of the evidence which the state of the bullion market affords in this interesting case. The argument which is drawn from the state of the exchange with foreign

fluctuations above or below. The fluctuations above have been more considerable than those below. In July last the price of gold was as high as 4*l.* 13*s.* per ounce. At 4*l.* 10*s.* per ounce, it is mathematically certain that the guinea, which contains 5 dwt. 8 gr. is intrinsically worth 1*l.* 4*s.*; as nothing can render it intrinsically worth less than the gold which it contains. But, as the traffic in guineas is an illegal traffic, and subjects the man who engages in it both to odium and danger, an extra profit must be made by it. Accordingly, the price of guineas, as far as we have been able to ascertain, has never exceeded 1*l.* 2*s.* 6*d.* or 1*l.* 3*s.* If an occasional alarm is excited, such as may have been excited by the late arrest proclaimed in all the newspapers of a certain individual for a transaction of this description, it may, for a time at least, make the danger appear greater than such a profit is sufficient to overbalance. To particularize any more circumstances by which the price of guineas may be affected, would be altogether useless. It is well known that every smuggling business is an irregular business; and that the price of all commodities which depend upon a smuggling business, or upon a business which is in a very small number of hands, is subject to fluctuations for which the particular nature of the business must account.

The money withdrawn from circulation to defray abroad the expense of the expeditions we have lately sent out,—the point to which, as being the broadest and most glaring, the eyes of most people are turned,—does not appear in fact to have had any effect upon the prices in question. The truth is, that those very individuals, who had access to know the circumstances, declare that the changes were not, in point of time at least, connected with the drains for the expeditions. But why need we talk of expeditions, when it is seen that the price of bullion accounts, and more than accounts, for all the enhancement of guineas which has appeared? At what other point of our history has it been found, that the paying for expeditions abroad produced a premium upon our guineas? Such is the result of experience.—What is the testimony of the principles? That such rise is the natural effect of such payment. Deduct a part from the mass of your currency, the effect is to raise the value of the whole—lower the price of commodities; but not to raise one part of the currency more than the rest. Its effect is to make gold dear, but equally dear both in bullion and in coin. Observe, too, that just as much as it is its effect to make gold dear at home, it is its effect to make gold cheap abroad. The gold, therefore, comes immediately back again. But in the present case this is so far from being the fact, that the fact is directly the reverse. Gold is cheap in England, cheaper than it is on the continent. A profit therefore has long been, and still is, to be made, by buying gold in England and selling it on the continent. As the effect (to whatever extent) of sending gold abroad to pay for the expeditions, must have been to annul late this state of things, it is intuitively certain that this state of things, as far as it exists, is produced, not by the expeditions, but in spite of them.

countries is similar, and hardly less conclusive. The reader who wishes to see it developed, should resort to Mr. Ricardo, on whose speculations we must here close our remarks. We cannot part with him, however, till he has received our thanks for the pleasure he has afforded us. A man of so much accurate information on this difficult subject, and with such well exercised powers of thought, presenting himself to us from the haunts of business, and we are sorry to add of ignorance, has encouraged us to entertain new hopes. He has inspired us with something approaching to a persuasion, that in the lapse of a considerable number of years, when the leading men of business are called before committees of the legislature to afford their evidence on points touching the legislation of commerce, they will not deliver nonsense, which at once exposes us to the mischief of bad laws, and to the ridicule of all the enlightened people of Europe.

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Art. IV. *An Inquiry into certain Vulgar Opinions concerning the Catholic Inhabitants and Antiquities of Ireland*: In a Series of Letters from thence, addressed to a Protestant Gentleman in England. By the Rev. J. Milner, D. D. F. S. A. &c. 8vo. pp. 278. Price 6s. Keating, Brown and Co. 1808.

Is an expedient for quelling our displeasure against the age we live in, by ascertaining some of its wonderful improvements, it lately occurred to us that it would be worth while to examine what length of time intelligent men, in former periods visited other countries, used to judge necessary, in order to form, and reduce to writing, a just and comprehensive estimate of the character, condition, and institutions of a people they had never seen before. For this purpose, we made out a list of the most distinguished noted reporters of the character and state of foreign nations that we could refer to or recollect. If we have been yet too indolent to accomplish this examination, that influence has partly resulted from our perfect confidence that the result would evince, on the part of the present times, a superiority in the power of intellectual despatch. We have scores of active inquisitive contemporaries in this country, any one of whom, putting on a good pair of boots and a suit of clothes, shall return to the starting place before they are half worn out, if the weather has been good; and in the interval accomplished a satisfactory survey of the extensive country and nation, and put it all in writing, either in letters to some friend at home, or in a valuable accumulation of sheets eager to escape from the portfolio to the press. And, to increase our wonder and delight at such a display of modern ability, the writer shall probably begin

by telling us that the nation he is going to survey is an eminently remarkable nation, deserving the most careful investigation into its character, institutions, and antiquities.

Dr. Milner had long witnessed in England the continual obloquy cast on the Irish nation, especially the Roman Catholic part of it. He was satisfied in his own mind of the falsehood of the unfavourable representations; but not quite satisfied with his means of vindicating a people, for whom he could not testify from personal observation. At last, he said to himself, "It is no such long journey from this my residence to the shore of the Irish channel, and from thence to the capital of Ireland is but the voyage of a few hours. What hinders me then from forming my own opinion upon these matters, by observing and conversing with the Irish Catholics in their own country?" p. 4. A pressing invitation arriving about the same time from a friend in Ireland, decided his resolution; and he set off. The work of writing began the instant he was 'safely lodged upon one of the quays of the Liffey;' the first letter was dated Dublin June 27; the concluding letter is dated Waterford, August 5; and, in the space between these two dates, he formed a complete estimate of the Irish national character; ascertained to the utmost nicety the state of knowledge and morals among all classes, especially the scattered peasantry took satisfactory evidence of the general, if we should rather say universal, excellence and high attainments of the Catholic clergy; speculated learnedly on the design of the most remarkable ancient edifices; disserted most learnedly on the ecclesiastical antiquities of Ireland, and the history of St. Patrick, refuting at vast length archbishop Usher and Dr. Ledwich; and decided on a very great number of other subjects, any one of which, in the state of the human faculties in former times, might have detained what was then called a man of sense a longer space than it took a learned author to dispose of them all. The writer making such marvellous despatch, it would ill become the reader not to catch some little of the manner, and be very quick in deciding whether it is likely that much accurate and certain information will be afforded by such an authority. Information, we mean, concerning the actual state of the people; for as to the historical investigation about St. Patrick and the nature of the earliest religious institutions in Ireland, it is probable nothing can appear to the people of this country of more trifling importance. And besides this is a sort of matter about which the Doctor had the smallest need to take the trouble of going to Ireland; it was most likely worked up in readiness before he left England.

land, but, as it related to Irish history, it seemed to find a better opportunity when the author was on Irish soil than it had done before. Either this course of research, in which much learning, labour, and acuteness, are employed, was mainly accomplished before the Doctor's visit to that country, or it must have occupied so much of the time he spent there as to render it totally impossible for him to give the due attention to the people he went to see.—We should not forget, however, that *seeing a people* is now reduced to a matter of very easy performance. In every considerable country there are several great towns; in one of these towns it is likely enough the investigator of national character has a personal acquaintance, and this person has acquaintance in the two or three others; all these persons, in such a hospitable country as Ireland, are gratified to entertain for a few days a man of some literary distinction and zealous adherent to their religious class. He drives along the great road to these several stations; is introduced, at each, to a number of persons of his own profession, and perhaps to several persons of note in a civil capacity; makes some after-dinner inquiries, takes a turn in the schools, hospitals, &c.; dips into a few statistical and political books concerning the country, and then comes away in the act of finishing a book of his own, which has rivalled, in quickness of growth, any one fungus of the soil he has traversed.

On the strength, however, of this slight excursion, our author assumes to pronounce, in his own name, on all the qualities of the Irish people. In some instances, he condescends to explain his process for acquiring knowledge; as when he mentions, with an air of taking to himself no small credit, that, in order to ascertain the state of religious knowledge among the poor, he was accustomed, when the post-boy dismounted to relieve his horses in ascending a hill, to quit the carriage, enter some of the cabins by the roadside, and try the children's knowledge of the catechism. It is not said that the chaise *waited* at the top of the hill; and, on the supposition that it did not, it would be a curious computation how many minutes in all were allowed for this employment, and what portion of time therefore could be depended on each of several children in each of several parishes, after allowing for the entering and departing salutations to the elder people.

A happy and poetical substitute for patient and extensive examination, is an unbounded credulity, which so evidently visible and learned a man as Dr. M. would have acquired under the influence of his Roman Catholic faith, and

of which he has given the Irish the utmost benefit. For, according to him, the Irish nation is not only endowed with the happiest capabilities, which we presume is admitted on all hands, but is, (the Roman Catholic part) in the full exercise, and almost maturity, of all the highest virtues and intellectual powers. Excepting a slight remainder of a taste for duelling, and a small tendency to inebriety, which may be only from the confluence and overflow of ever so many generous feelings, this neglected, ill-fated, superstitious people can hardly be charged with a vice. Among the lower order, a more than golden age of morals and religion is returned; and the people are as strikingly distinguished by piety of language, as the same classes in England are by profaneness.

‘Another circumstance edified me in this people, and would have edified me if I had been of a different communion from theirs, I mean a vein of morality and religion which seasons their discourses. Instead of those horrid oaths and curses which interlard and eke out the language of our English labouring poor, wherever we hear it, in the streets or upon the roads, my ears are now habituated to the language of piety among the lowest orders of the people. Thus, for example, a poor blind man being relieved by me, he expressed his gratitude in the following prayer. “May God grant you a holy life and a happy death.” On a similar occasion, a poor woman returned thanks in the same terms. “May health, wealth, and heaven be given to you.”’ p. 58

As to these very well composed forms of prayer, it is, no doubt, impossible for us to surmise they can ever be uttered but with feelings of genuine piety, when we recollect how commodiously furnished our English beggars generally are with equally religious though generally more concise forms of benediction, and at the same time with good store of profane imprecations, for appropriate times and uses. It is the country and the Catholic religion that make the happy difference. And we must here caution the English protestant reader, who may propose visiting Ireland, not to mistake for profaneness, when he is struck, as he will very soon be, with the novelty, variety, and frequency of the oaths and imprecations of the lower orders.

In imputing credulity to our author in his estimate of the moral state of the lower orders of the Irish people, we may in course imply that his hasty visit to a few of the clergy and gentry of that country was managed in a way to leave him profoundly ignorant of the real state of the common people, and willing to take on trust such pleasant representations as the persons he transiently associated with saw would gratify him to hear. But it may be questionable how far it is proper to apply the kindly term credulity, when

the monstrous statement relates to a very specific fact, and is made with the sort of personal pledge given in the following instance. Citing Sir J. Carr's report of a report that in the county of Kerry classical learning was very general among the peasants *a few years ago*, he adds,

'That this is an undoubted fact, and that a great proportion of these peasants, some twenty or thirty years back, could even converse very fluently in Latin, I can testify in some degree from my own acquaintance with some of them, and still more from the account of witnesses of the highest honour, and of first rate information.' p. 185.

Still, however, we think it will be judged most fair and candid to attribute the Dr.'s sanction of such stories to a perfectly innocent credulity, after we shall have quoted an instance of a still more admirable and enviable capacity of faith. We are fully satisfied the Doctor sincerely and solemnly believes he has saluted in Ireland *a piece of the true Cross*.

'The church and monastery of Holy Cross were built for the particular purpose of preserving a portion of the true Cross on which our blessed Saviour suffered death. Certain it is, from ecclesiastical history, that the Christians never lost sight of this precious relic. It was buried by the heathens under a temple of Venus, in the reign of the Emperor Adrian, when he demolished the original city of Jerusalem; but it was found again by the Empress St. Helena, at which some particles of it were distributed throughout christendom. The three principal pieces of it were preserved at Jerusalem, Constantinople, and Rome, from each of which small particles of it were occasionally taken. You will be surprised, sir, when I tell you that the identical portion of the true Cross for the sake of which this splendid shrine was erected, is now in the possession of my respected friend and fellow traveller, having been preserved from sacrilege in the reign of Henry VIII by the Ormond family, and by them transmitted to the family of Kavenah, a surviving descendant of which has deposited it with my friend. It is by far the largest piece of the Cross I ever met with, being about two inches and a half long, and about half an inch broad, but very thin. It is inserted in the lower shaft of an archiepiscopal cross, made of some curious wood, and inclosed in a gilt case. Had you seen me respectfully saluting that material instrument of redemption, &c. &c.' p. 128.

To shew that Dr. M's credulity is, as first rate talents are said to be, capable of acting in any direction, we shall give one more sample. In a very just and animated invective against duelling, he takes occasion to expostulate with the friend to whom he writes, (an English officer) on "the most criminal disposition of mind, with regard to this subject, in which he fears that friend is habitually living." and after very pathetically pleading the distress which

would overwhelm the parent, wife, and children of this friend, should he fight and die, our author adds,

‘Independently, however, of these considerations, remember *you are a Christian*; that is to say, *a disciple of him* who has made the forgiveness of injuries (great as well as little,) for there is no distinction, the characteristic of those who belong to him, and who, to confirm his doctrine by his example, died praying for the wretches who were shedding his blood.’ p. 48.

To admit the claim of this person to the denomination of a ‘Christian,’ a ‘disciple’ of Christ, while expressly charging him with this ‘most criminal disposition,’ is a credulity fitly rewarded by that privilege from the jurisdiction of reason — a firm faith in transubstantiation.—By the way, we hope the Doctor’s Catholic orthodoxy may not incur any suspicion among his brethren, in consequence of his applying these denominations to a heretic.

A considerable part of the volume is employed in defending some of the popish tenets and institutions, a department of science not much likely to be ever again in vogue in England. The valuable parts of the book are those which display the most impolitic, and in many points cruel treatment, which the Irish as a nation, and the Irish Catholics in particular, have experienced from the English government. This portion of the book will very much interest every reader who is convinced, as we are, that a different system of policy towards that unhappy country is very fast becoming so imperiously necessary, that to refuse it will be to court destruction.

Among the questions of Irish antiquity, Dr. M. ably discusses the various opinions advanced concerning the design of the round towers, and proves, we think, that no conjecture is so probable as that which makes each of them to have been raised for the habitation of a religious recluse. The whole volume bears evidence of very respectable ability and extensive learning.

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Art. V. *Philosophical Transactions, of the Royal Society of London for the Year 1809. Part II.* 4to. pp. 280. price 10s. 6d. Nicol, 1809.

**T**HIS part of the Transactions of the Royal Society for 1809 contains eighteen memoirs, numbered from ten to twenty-seven both inclusive.

**X.** *On Platina and Native Palladium from Brasil.* William Hyde Wollaston, M. D. Sec. R. S. Read March 22, 1809.

The mineral, which forms the subject of the present communication, was received lately from the gold mines in Bra-

sil, by the Chevalier de Souza Coutinho, ambassador from the court of Portugal to that of Great Britain. Its general appearance was such, that Dr. W. could form no opinion of what it might be found to consist, but it resembled very closely the form given to platina by attempting to render it malleable by means of arsenic. It did not appear, however, to have been subjected to any artificial treatment, as small particles of gold were distinctly visible on close inspection; but it did not exhibit the magnetic iron sand, nor the small hyacinths which Dr. W. had found to form part of the Peruvian ore. It differed from the common ore of platina in having no polish, the grains resembled the fragments of a spongy substance, and even those most rounded had small spherical protuberances closely coherent, but with the interstices clean and free from tarnish. A portion of it was submitted to the action of nitro-muriatic acid; and two of the grains being observed to be much more rapidly acted upon than platina usually is, and to give a deeper red colour to the solution, were separated for subsequent examination. The other portion, when dissolved and examined by the usual re-agents, was found to be nearly pure platina; it contained minute portions of gold and palladium, but exhibited no distinct appearance of iridium or rhodium. The two grains which had been removed from the former solution, were dissolved in nitric acid, and a black powder remained on which the acid exerted no power. The dissolved portion was found to be palladium, and another quantity examined by the action of the blowpipe exhibited the usual characters of that metal. The black powder dissolved readily when a little muriatic acid was added to the nitric; and from this solution muriat of ammonia threw down a precipitate of platina coloured by iridium. These, therefore, were grains of native palladium; and on examining its external appearance, Dr. W. found it easy to distinguish it from the substances in which it was imbedded. The surface of the grains was fibrous, with the fibres divergent from one extremity; and from the certainty with which he was enabled to distinguish the grains by this appearance, Dr. W. is induced to consider it as characteristic.

*On a native Arseniate of Lead. By the Rev. William Gregor. Communicated by Charles Hatchett, Esq. F.R.S.*  
Read April 13, 1809.

This mineral was found in a rich copper mine, in the parish of Gwennap in Cornwall, intermixed with several varieties of the ore of that metal. It is regularly crystallized; and the form of its most perfect crystal is a hexaedron, varying in diameter from the tenth of an inch to the

thickness of a hair. The longest crystals do not exceed  $\frac{1}{2}$  of an inch; and these terminate in a plane at right angles to the axis of the prism, but many of the smaller ones terminate in a fine taper point, which Mr. G. suspects to be a six-sided pyramid. The colour varies from the yellow of the Brazilian topaz, to the brown of common resin, or coarse sugar-candy. Some of the crystals are perfectly transparent, and the angular fragments of these are sufficiently hard to scratch glass; the external lustre is in some specimens vitreous, in others resinous, and occasionally the surface is covered with delicate filaments of a silky lustre. The specific gravity of the purest crystals is 6.41 at the temperature of 50°. A portion, melted in a gold spoon by the blow-pipe, did not appear to be altered when kept in a state of ignition; but when heated on charcoal it was speedily decomposed, arsenical vapours were disengaged, and metallic lead remained behind. It is soluble in nitric acid, even without heat, if reduced previously to a state of powder. The transparency of the solution is not diminished by nitrat of barytes; nitrat of silver renders it turbid, and sulphuric acid and its soluble compounds produce a copious precipitate of a heavy white powder. The liquid, after the precipitates have subsided when cleared from the superabundant sulphuric acid, yields a abundant white precipitate on the addition of nitrat of lead in solution, and this precipitate, when acted upon by the blow-pipe in contact with charcoal, resolves itself into metallic lead and arsenical vapours.

These facts led Mr. Gregor to conclude that the mineral consisted of oxide of lead, arsenic acid, and a small portion of muriatic acid; and from more ample and accurate analysis of which a detail is given, he estimates its composition to be oxide of lead, 69.76. arsenic acid 26.40. muriatic acid 1.5. with small portions of silica and oxide of iron, which appear to be merely accidental ingredients.

**XII.** *An anatomical Account of the Squalus maximus (of Linnaeus) which in the Structure of its Stomach forms an intermediate Link in the Gradation of Animals between the Whale Tribe and cartilaginous Fishes.* By Everard Home Esq. F. R. S. Read May 11, 1809.

In a former paper, inserted in the first part of the present volume, Mr. H. gave an account of the peculiarities in the formation of the spine of the *squalus maximus*; and in this he describes other remarkable features in its anatomical structure. The fish, from which the account is taken, was entangled in the herring-nets off the coast of Hastings in November 1808: it measured 36 feet 6 inches in length.

and about 9 feet from the extreme point of the dorsal fin to the middle line of the abdomen. The structure of the stomach is the most remarkable circumstance in the description here given; and in this respect it is so essentially different from the shark, that Mr. H. considers it as forming an intermediate link between the shark and the whale. Besides the cardiac and pyloric portions, as in other sharks, there is a globular cavity, with which the pyloric portion communicates by a very small orifice, and there is another orifice nearly of the same size, between this cavity and the intestine. The upper part of the duodenum is smooth, and the gall ducts open into it by a long nipple-like projection, and just below this the spiral valve has its origin as in other sharks." p. 210.

Mr. H. is of opinion, that the shark tribe, from the peculiarities of internal structure, may be sub-divided into many genera, making, with the rays and skates, so many links between the whales, and fishes properly so called. It is not unworthy of notice that two other squali of large dimensions were thrown upon the coast about the same period; one at Porthcurn in Cornwall, the other at Stronsay one of the Orkneys. The last was in an almost putrid state, and much mutilated when first observed; and our readers will probably recollect that it was described with much minuteness of detail in the journals of the day, as a new species of sea snake, the depositions on the subject were put into the hands of Mr. Home by Sir Joseph Banks, and he procured portions of its skull, spine, and cartilages through the intervention of his friend Mr. Laing, and on comparing these with the corresponding parts of the *squalus maximus*, they were found to agree both in form and dimensions. This paper is illustrated by four engravings, exhibiting the natural figure and proportions of the fish, and the structure of its stomach compared with that of the common dog-fish.

III. *On an Improvement in the Manner of dividing astronomical Instruments.* By Henry Cavendish, Esq. F. R. S. Read May 18, 1809.

The accurate division of astronomical instruments is of such great importance, that every suggestion for its improvement merits attention. The plan proposed by Mr. C. is to use a beam compass with only one point; and to substitute, for the other, a microscope movable from one end of the beam to the other. The compass is to have its centre of motion on a frame resting steadily on the face of the circle to be divided, and fixed so as to be capable of sliding along it by means of an adjusting motion, that may admit of its being brought to any required point. The centre of

motion of the compass itself is also movable, so as to admit of adjustment to circles of different magnitudes. The plan is at once simple and ingenious, and appears to be capable of a very considerable degree of accuracy; but its real value, Mr. C. justly observes, must be determined by experience, and the judgement of artists. The requisite apparatus is much less complicated than in the mode adopted by Mr. Troughton, and described in the former part of the present volume; and it does not require the computation of a table of errors, and the subsequent adjustment of a sector according to the numbers of that table, both of which are indispensable in Mr. Troughton's method.

XIV. *On a Method of examining the Divisions of astronomical Instruments.* By the Rev. William Lax, A. M. F. R. S. Lowndes's Professor of Astronomy in the University of Cambridge. In a Letter to the Rev. Dr. Maskelyne, F. R. S. Astronomer Royal. Read June 1, 1809.

This is a valuable communication, but not very susceptible of abridgement. By means of a simple apparatus which he has described with sufficient minuteness, Mr. Lax measures the subdivisions of the instrument to be examined beginning with the arc of  $180^\circ$ , and proceeding afterwards to those of  $90^\circ$ ,  $60^\circ$ ,  $45^\circ$ , &c. and measuring each succeeding arc of the same magnitude in the circle, against that first ascertained, and noting down their differences with the characters  $+$  or  $-$  prefixed. This measurement determines the proportion which the first, and each succeeding arc bears to the whole circle, and consequently the absolute lengths of the arcs themselves.

"Let  $a$  denote the real length of the first of these, and  $+a'$ ,  $+a''$ ,  $+a'''$ , &c. the difference betwixt the first and second, the first and third, &c. respectively; let  $A$  represent any other arc whose length is known, and which is a multiple of  $a$ , as marked upon the instrument, and let this multiple be expressed by  $n$ . Then will  $a + (a+a') + (a+a'') + (a+a''') + \&c. \dots (a+a'''\dots n-1) = A$ , and  $a = \frac{A - a' - a'' - a''' \dots}{n}$

Hence it is evident, if there is no error committed in the measurement of any of these arcs, we shall have the value of  $a$ , and consequently of  $a+a'$ ,  $a+a''$ ,  $a+a'''$ , &c., and any arc, comprehending any number of these accurately determined." p. 235.

The plan is not liable to any considerable degree of error, but it must of course vary in some measure with the accuracy of the examiner's eye, and the excellence of the microscope employed. The apparatus here described has also the advantage of supplying a ready mode of rectifying observations.

ions which are required to be remarkably correct. "We have only to measure the arc which has been determined by the observation, against the whole circle, or against the multiple of it, which approaches nearest to the circle, and from thence to deduce its value in the manner explained above, and we shall either have entirely excluded the error which we apprehended, or have rendered it too small to be of any importance." p. 242.

Mr. L. thinks this expedient possesses all the advantages of the French circle of repetition, without its inconveniences, and that it is capable of a higher degree of accuracy.

*IV. On the Identity of Columbium and Tantalum. By William Hyde Wollaston, M. D. Sec. R. S. Read June 8, 1809.*

Some degree of suspicion has been entertained, that the two metals discovered about the same time by Mr. Hatchett and Mr. Ekeberg were in fact the same metal; and Dr. W. in the paper before us appears to have removed all remaining doubt on the subject. Having obtained specimens of the Swedish minerals tantalite, and yttrotantalite, he procured a small supply of the oxide of columbium from Mr. Hatchett, and a few small fragments of the mineral analysed by Mr. W. from the trustees of the British Museum. The external appearance of the two minerals is so much the same, that no difference can be discovered. The external surface, the colour, lustre, and fracture are precisely the same; but columbite breaks rather more easily under a blow, and the fracture is less uniform. When the two minerals are rubbed against each other, they appear to have the same degree of hardness, and the colour of the scratch in both has the same dark brown tint. Each of the minerals, when analysed, was found to consist of a white oxide, combined with iron and manganese.—Five grains of columbite gave of white oxide 3 grains, oxide of iron  $\frac{3}{4}$  of a grain, oxide of manganese  $\frac{1}{4}$  of a grain. Five grains of tantalite, treated in the same manner, gave of oxide  $4\frac{1}{4}$  grains, oxide of iron  $\frac{1}{2}$  a grain, oxide of manganese  $\frac{2}{10}$  of a grain. The white oxide of the minerals is remarkably insoluble in the muriatic, nitric, and sulphuric acids, but very readily soluble in potash whether pure or saturated with carbonic acid, and in soda, though much less completely; they are each precipitated from the alkaline solution by the addition of an acid, but are not re-dissolved in an excess of the sulphuric, nitric, muriatic, succinic or acetic acids; they are each perfectly soluble in the oxalic, tartaric, and citric acids, and the solution with each is subject to the same limitations, for if the oxide has been dried after precipitation, it can scarcely be re-dissolved, until it has been again fused with potash. Prussiat and hydrosulphuret

of potash occasion no precipitation from the alkaline solution; the infusion of galls throws down an orange-coloured powder, but to produce this effect it is necessary that sufficient acid should be added to neutralize any excess of alkali which might happen to be present, and there should be no excess present of the oxalic, tartaric, or citric acids. Dr. W. considers the infusion of galls as the characteristic precipitant of this metal. From this perfect agreement in the chemical properties of the two oxides, there can be no reasonable doubt of their identity; but there is a remarkable difference in the specific gravity of the two minerals from which they are obtained. The specific gravity of columbite as determined by Mr. Hatchett is 5.918, that of tantalite as ascertained by Mr. Ekeberg 7.953; results which Dr. W. considers from his own trials sufficiently correct. Whether this discrepancy arises from a difference in the state of oxidation of the metal, or from the state of aggregation is uncertain.

**XVI.** *Description of a reflective Goniometer.* By William Hyde Wollaston, M. D. Sec. R. S. Read June 8, 1809.

This is an ingenious instrument, but a description of it could not be very intelligible without a reference to the engraving annexed to the paper. It is intended to measure the inclination of the surfaces of crystals by means of the rays of light reflected from them, and from the principles of its construction, it would appear to admit of very considerable accuracy. Dr. W. finds it possible by means of it to determine the position of surfaces of  $\frac{1}{50}$  of an inch in breadth, with as much precision as those of much larger crystals; and he thinks it will supply the means of correcting many of the errors of former observations.

**XVII.** *Continuation of Experiments for investigating the Cause of coloured concentric Rings, and other Appearances of a similar Nature.* By William Herschel, LL. D. F. R. S. Read, March 33, 1809.

This paper is a continuation of a disquisition which we have already noticed (Vol. V. p. 128.) in reviewing the second part of the Philosophical Transactions, for 1807. In that communication, Dr. Herschel pointed out a variety of methods that will produce coloured concentric rings between two glasses of a proper figure applied to each other; and was attempted to be proved that only two surfaces, namely those that are in contact with each other, are essential to the formation of such rings. The Doctor now enlarges the field of prismatic phenomena, shews that the appearance of the shape of rings has been owing to the exclusive use of spherical curves, and intends from the whole to establish

more satisfactory theory than the Newtonian one of *fits of reflection and transmission*.

In the paper before us, the first section, numbered in continuation 35, affirms that 'cylindrical curves produce streaks.' One surface of a plate of glass being ground to a cylindrical form, it exhibited, when in contact with a plane surface, streaks of colour which 'differed in no respect from rings, except in their linear, instead of circular arrangement.' The next two sections inform us, that 'cylindrical and spherical surfaces combined produce coloured *elliptical* rings;' and that 'irregular curves produce irregular figures.' All this contains nothing new. In the two succeeding sections, it is attempted to prove that curved surfaces are necessary to the production of the coloured appearances under consideration; and that such appearances cannot be produced between the plane surfaces of two parallel pieces of glass: yet the author adds that 'when the incumbent plane is *not of a parallel thickness*,' as he strangely expresses it, 'coloured phenomena may be rendered visible between two perfectly plane surfaces;' while in the same page he asserts, that no more than *two surfaces* are essential to the formation of coloured rings. Such contradictions it is not *our* business to reconcile. Here, too, the Doctor's explanation of the disappearance of the colours between two pieces of glass separated at one end by a slip of platina, is extremely forced, arbitrary, and inadmissible; unless he can shew that the same colours are not produced by a pressure immediately upon the surfaces in contact. In this part, also, when speaking of the mutual repulsion of the glasses, he has been anticipated by Newton himself, by the late Professor Robison, and by Dr. Thomas Young.

Sections 40, 41, 42, 43, relate to the production of coloured appearances, to the Newtonian prismatic blue and red bows, and the sudden change of colours of the bows; and particularly objectionable; we can, however, specify only one thing here. The Doctor says, 'according to my account the red bow it ought to be seen in the prism a *little above* the blue one; and this is also farther confirmed by any one of the experiments in which we have some part of each bow view at the same time, for then the relative situation of the bows will be visible.' Now this *must* all be a fallacy; the red bow is merely the supplement of the blue one, breadth the same, and it must necessarily appear at the same elevation. To a careless observer, indeed, it might appear a little more elevated, on account of the slight difference between the upper edge of the blue bow from white light, and the subsequent feeble marking, compared with the strong termi-

nation of the red one. But had Dr. H. simply covered the opposite halves of two of the sides of a common prism with two pieces of paper, and looked up through the third towards the stay, he would have had a perfect view of both bows placed side by side, and equal in breadth: while, according to his *calculations*, the red bow ought to be not only 'a little,' but entirely above the blue one.

The 44th section relates to the 'streaks and other phenomena produced from the prismatic blue and red bows.' Here however, nothing occurs but what is perfectly conformable to Newton's rule for computing the effects of light falling obliquely upon thin plates. The 45th section contains descriptions of the different appearances of the prismatic bows in prisms of different forms, and according to the different directions of the light. Section 46, is designed to prove that 'the first surface of a prism is not concerned in the formation of the blue bow, nor of the streaks that are produced by plane glass applied to the efficient surface;' and section 47 that 'the streaks which may be seen in the blue bow contain the colours of both the parts of the prismatic spectrum, but the critical separation of which the bow is formed.' The 48th section relates to the 'formation of streaks.' This is accompanied by some immense figures, on a scale a thousand times magnified. It is intended to be proved, that 'the principle of reflection is the cause of streaks;' but, notwithstanding the aid of the gigantic diagrams, we are by no means satisfied with the supposed demonstration. From the 49th section the reader may learn that 'prismatic bows, when seen at distance, are straight lines.' The 50th affirms, that 'the colours of the bow streaks owe their production to the principle of the *critical separation* of the different parts of the prismatic spectrum.' It must here be remarked, that the angle at which the rays constituting the blue bow (sect. 41) are separated from the rest, are termed by Dr. H. *critical*, and to effect a *critical separation*.

'Let a plain glass be laid under the base of a right angled prism, then, if the eye at first be placed very low, no streaks will be seen; when afterwards the eye is gradually elevated, till by the appearance of the blue bow we find that the principle of the critical separation of colours is exerted, the streaks will become visible, and not before; nor will they remain in view when the eye is lifted higher than the situation in which the effects of the critical separation are visible. It is therefore evident not only that the colours are furnished by the same cause which produces the bow, but also that they are modified into streaks by the plain surface under the prism,' pp. 292, 293.

All this, notwithstanding, is perfectly consistent with Newtonian theory; and will admit of a ready explanation.

without adverting to Dr. H.'s new principle. For the streaks cannot be seen when the eye is very low, because the reflection is then *total*; and they will usually disappear when the eye is much elevated, because either a great obliquity, or a very close contact, is required for producing them.

The 51st section is to prove that 'a lens may be looked upon as a prism bent round in a circular form.' This proposition may be admitted without any proof, provided the angle of the supposed prism be always thought equal to that formed by the tangent planes to the lens at the point concerned in any individual experiment. Dr. H. details some experiments to establish this: and then says, 'a consequence of great importance may be drawn from' them:

'For since the cause of the coloured appearances, which have been called bows when seen in a prism, is now perfectly understood to be the critical separation of the colours of the incident light, it must be admitted that such a separation will certainly take place whenever a beam of light can find an entrance into glass, so as to make the required angles either with an interior or exterior surface, be it in the shape of a prism, or solid of any kind, although the figure of the last transmitting surface should not permit such coloured-appearance-making-rays to reach the eye. A plano-convex lens will consequently by its construction separate the rays of light which enter at the convex surface in such a manner, by reflection to produce what, if it could be seen, would be called a bow, and by rays that come in at the plain side, separate them by omission so as to produce a red one.

To remove all doubt about the truth of this theory, I ground a small piece of a plano-convex lens flat, that I might look into it, as it were, through a window, to see what passed within. The flat made an angle at the base of about thirty-four degrees, and I saw through it very clearly, in different directions of the illumination, a blue bow by light coming at the convex surface, and a red bow by light coming in at the plain side.' p. 297.

How egregiously may a very ingenious man deceive himself, to support a favourite theory! When Dr. Herschel ground a small part of a plano-convex lens flat, to make 'a window' by which he might 'see what passed within,' 'tis true he did not grind another window for his understanding, through which he might have perceived that by this process he actually converts his lens into a prism. To convert a lens into a prism in order to see what takes place in a lens, is very ingenious enough. We recollect only one experiment equally ingenious: that of the Irishman, who placed himself before a mirror and shut his eyes, in order to see how he looked when he was asleep.

In section 52, Dr. H. attempts to prove that 'the critical separation of the colours, which takes place at certain angles of incidence, is the primary cause of the Newtonian coloured bow.' VI.

rings between object glasses.' This section occupies more than three pages; and Dr. H., through some singular fatality, seems perfectly convinced that his reasoning is legitimate, though we recollect no instance of a similar paralogism in the history of science. He sees and *confesses*, that the coloured rings are visible at *all* angles; his 'critical separation' only takes place 'at *certain* angles,' in glass, for example, at about 50 degrees; yet, is our theorist perfectly satisfied that this partial critical separation is the general cause of the colours seen at all angles! And this is the manner in which the theory of Newton is to be overthrown. A much able mathematician, and a far more ingenious experimenter, than Dr. Herschel, Father Boscovich, advanced objections to Newton's theory of *fits of easy reflection and easy transmission* which, after a closer examination, he found really furnished new arguments in *favour* of that hypothesis. If Dr. H. would follow the example of Boscovich, and could pursue his researches with skill equal to his industry and perseverance we doubt not he would soon find cause for a similar change of opinion. As it is, we can only regret that the first practical astronomer of the age should wander from the province for which nature seems to have fitted him, and ramble in others where he is a total stranger to every object around him, and where every additional step seems only to take him farther from the path of safety and of fame.

XVIII. *An Account of a Calculus from the Human Body of uncommon Magnitude.* By Sir James Earle, F. R. S. Received June 15, 1809.

It is unnecessary to enter very minutely into the circumstances of this singularly painful history. The subject of it (Sir Walter Ogilvie, of Dundee, Baronet) at the age of twenty-three received a blow on the back, from the boom of the vessel in which he was crossing the ferry at Leith. The lower extremities, and the contents of the pelvis, became paralysed, and though after a tedious confinement he regained in some degree the use of his limbs, his health and activity were never restored. Twenty years after the accident, symptoms of stone in the bladder made their appearance: and the actual existence of the disease having been ascertained by late Mr. Benjamin Bell of Edinburgh, the operation of lithotomy was recommended, but postponed from time to time until the pain occasioned by the increased magnitude of the concretion became perfectly intolerable. In the summer of 1808, thirty years after the accident, he was removed to London for the purpose of undergoing the operation. From the bulk of the calculus, it was found impossible to move it whole, and it was too firm to be broken down by mechanical force which it was safe to employ. On the tenth

after the operation, the life of the sufferer was terminated. On inspecting the body after death, the stone was found to fill the bladder entirely; it weighed 44 ounces apothecaries weight, and its circumference on the longer axis (for its form was in a considerable degree elliptical) was 16 inches, and on the shorter 14. It was subjected to chemical examination by Dr. Powel, and found to consist of the triple phosphat of ammonia, magnesia, and lime, forming the fusible calculus of Dr. Wollaston, together with rather a large proportion of animal matter. Its internal structure exhibited distinct nuclei, consolidated into one mass, and formed of concentric layers.

(To be concluded in the next Number.)

Art. VI. *A Treatise on the Conduct of God to the Human Species, and on the divine Mission of Jesus Christ.* By the late J. Hare, A. M. Author of an *Essay on Scepticism*, Rector of Coln St. Denys, Gloucestershire, and Vicar of Stratton St. Margaret, Wilts. 8vo. pp. 393. Price 10s. 6d. Rivingtons. 1809.

AFTER reading the *Phædon* with attention, says Mr. Hare, 'the reader rises from its perusal with the idea, that the powers of the writer were very unequal to the task he had undertaken.' It is owing to the inexhaustible patience with which reviewers are proverbially noted, that we have a right to advance an opinion of the same kind respecting this volume. Not only has this thankless toil convinced us, that he was singularly destitute of the information and acuteness, as well as the judgement, requisite to compose a satisfactory treatise on the subject, but it has induced us to question whether his mind was of sufficient capacity to comprehend at once the several objects that such a treatise should embrace, and endued with sufficient skill to arrange them in any thing like a natural order, even if the materials had been ready furnished to his hand. He does not appear to have been at all aware of the extent or difficulty of the task he undertook; so much as to have considered what a man of an ordinary degree of sense would expect such a treatise to contain. Any consideration of this nature, indeed, in the mind of Mr. Hare, would have suggested but a humble object of pursuit, or patronage for imitation: but it would surely have taught him that a book, in order to answer the most moderate expectations, must contain a history of the divine conduct towards man, so far as it could be collected from the scriptures, occasionally illustrated and confirmed by the annals of the world and common experience: that as many portions of such a history must be supposed, partly from the ignorance, partly from the presumption, partly from the depravity of man, to obscure

the lustre of the divine character, it would be necessary to vindicate and justify the providence of God, and remove whatever solid or specious difficulties might embarrass it: and that, since the conduct of God to man becomes an object of solicitude, principally as it tends to promote in our minds the growth of piety and virtue, there must by no means be omitted a description and an improvement of the duties we should practise in consequence of the treatment we have received from the Deity.

We consider it as admitting of very little doubt, that Mr. H. sat down to write the papers contained in this volume, without any design of making a treatise 'on the conduct of God to the human species,' and that having heaped together a sufficient quantity of materials, upon some points that undoubtedly should be discussed in such a treatise, to form a book of considerable size, he *energized* his invention (to use an elegant term of his own) upon this subject, and at last very unluckily fixed on the present title. That this was the case, we infer from the title itself, as well as the whole fabric of the work. Every man, who believes in the divine authority of the scriptures, knows that by far the most remarkable part of the 'divine conduct to man' is 'the mission of Jesus Christ;' which, instead of being a distinct and separate subject, is naturally and necessarily included in it. The different parts of this book, however, have nothing that holds them together. The conclusion would be equally intelligible and impressive, at the commencement, or in the middle, as at the close of the work. You may take away one half of the pages without producing a chasm, read any portion of it without the aid of any other portion, and arrange the whole in a manner as contrary as possible to the present position of the parts, without impairing the force of one argument or adding the least obscurity to a single passage. It was only by a proper disposition and a judicious management of the topics Mr. H. pretends to handle, that they could subserve his purpose. They should have been wrought into an entire and solid chain of reasoning, no less firm than polished, not thrown together as plunder collected in the heat of battle. This total want of plan and arrangement in his book, should be attributed, we think, not to his incapacity, so much as to the several parts of it having been composed without any design that they should be stitched up together or pass under a common appellation. We will venture a conjecture, that this treatise is for the most part a transcript of some of his discourses with which Mr. H. edified his parishioners, placed indeed beside each other, but not so far improved as to have the repetitions expunged. Hence the first proposition,

he calls it, is devoted to the solution of objections *against* the divine goodness, and the third to arguments *in favour* of that attribute, while the intermediate space is occupied with a variety of remarks, designed to evince the divinity of Christ, and the divine origin of his mission, interspersed also with the discussion of other subjects.

The same lamentable deficiency of the powers essential to an author of the lowest rank, that appears in the location, is also conspicuous in the manufacture, of the separate parts of this treatise. Far from pursuing the beaten track of establishing principles and then repelling objections, Mr. H., by a strange perverseness, first marshals his objections, and in order to obviate them is under the necessity of making use of the same reasonings he must afterwards employ in support of his positions. He confounds distinct subjects, and argues by turns in defence of contrary sentiments. In his view, the premises from which an objection may be deduced, and the objection itself, are the same. His argument very often moves in a circle. He supports the weightiest asseverations by the testimonies of heathen philosophers; and with infinite courage and success labours to prove truisms that every one would have granted him without hesitation. The same facts furnish him with contradictory conclusions; and, in some instances, having magnified an objection into something very formidable, in the same page he degrades it into the veriest absurdity that ever disgraced the human intellect. To illustrate these remarks by particular examples, would only stigmatize and disgust our readers.

'Here,' says Mr. H. in drawing to the conclusion of his labours, 'I might exceedingly enrich this volume, by extracting from Dr. Nieuwenhuysen's "Religious Philosopher, or Right Use of contemplating the Works of the Creator;" "Derham's Physico and Astro Theology;" "Ray on the Wisdom of God in the Creation;" and "Dr. Paley's Natural Theology;" many delightful instances of the goodness of God displayed in the glories of his creation in general, and exhibited in favour of the human species in particular: but I forbear.'

The reason of this forbearance, as we find in a note, is, that 'this practice makes one book the mere echo of another.' It might naturally be inferred from this passage, that Mr. H. regarded his treatise as an original work. We should have been disposed, ourselves, to allow him the whole merit of the contrivance as well as execution, but for two other passages, in which he betrays a consciousness of being under consideration of an obligation to former writers, by claiming these in particular as his own, having never met with the remarks in any work whatever. We regard the paragraphs in which Mr. H. so advantageously displayed his invention, as very precious

morsels, and cannot but enrich our journal with them both; because we think them as favourable and characteristic extracts as can be made from the treatise, and deem it highly criminal to defraud our readers of whatever has the least appearance of novelty.

‘Of all the actions of our Redeemer, (excepting his resurrection,) the one which, in my humble judgment, is the most extraordinary, the most peculiar, most particularly impressive of his divinity, and a sensible demonstration of his being the Son of God, is the action of his imparting the holy Spirit to his Apostles: “He breathed on them, and saith unto them, Receive ye the Holy Ghost.” This is not at all the action of a mere man; as such it would have been a contemptible puerility: but as the action of the Son of God, conscious of his divine power, and of his ability to impart its heavenly influence, in how great, how awful and imposing a way ought it to be considered! When God created man, “he breathed into his nostrils the breath of life, and man became a living soul:” and when the Son of God means that man, dead in trespasses and sin, should again become a living soul, he imitates this action of his Father, and, by this heavenly inspiration, imparts to man that holy Spirit, without which, in a spiritual sense, he must ever have continued to be dead. By this gracious action of our Saviour man becomes, in deed and in truth, regenerate; a right spirit is renewed within him; that spirit by which alone his natural corruption and depravity, and the venom of original sin can be subdued in his mind, and by which alone his soul is disposed to the acquisition of that holiness, without which no man can see the Lord or be admitted into his kingdom. By this divine afflatus of our blessed Redeemer, man is emancipated from the power of sin and death; and therefore it is a literal fulfilment of that promise to Adam, that “the seed of the woman should bruise the serpent’s head;” and likewise of that to Abraham, that in the Messiah “all nations of the earth should be blessed.”

‘This passage of Scripture merits the particular consideration of those who entertain any doubts of our Saviour’s divinity, it being one of the strongest proofs which is calculated to influence the human mind, in the most powerful and efficacious manner, to a conviction and belief of his being the Son of God.’ pp. 294—296.

‘The goodness of God, in many instances, is like some of his works, those stars, for example, which, unless viewed by a telescope, are never seen: contemplation is in this respect to the mind, what the telescope is to the eye, and without it we shall never have more than a very imperfect notion of the goodness of God. With the reader’s permission, I will illustrate what I mean by an example. The fruits of the field, such as wheat, barley, &c. respectively grow ripe at once, because it is for the evident advantage and interest of man they should do so; and it would be a dreadful evil if they did not: whilst the fruits and flowers of a garden ripen in succession, and the fruit even on any one tree does not ripen at once, there being often an interval of ten days or a fortnight between the ripening of the first and last peach or nectarine on the same tree, because these delicious fruits were clearly and unequivocally intended for a continued pleasure and gratification to man; and this gracious intention

the part of God would have been in great measure frustrated, if these fruits of the garden had grown ripe all at once, like those of the field. Is not the Goodness of God evidently exhibited in this instance? Nevertheless, I have never heard it remarked either in conversation, or seen it noticed in any book, though it may have often been observed in both; as indeed it is one so plain and obvious, that a child might have remarked it.' pp. 384—385.

It is but justice to say, that Mr. H. appears to have been a well meaning man; and that he has collected, in his treatise, a multitude of very common but important truths. But he has fallen into a variety of gross and often pernicious errors, which we should have more minutely examined, and to the best of our ability exposed, had not his work contained so much feebleness and absurdity, so many preposterous phrases and unintelligible propositions, as render it more an object of disgust than a source of alarm.

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Art. VII *Indian Recreations*; consisting of Thoughts on the Effects of the British Government on the State of India: Accompanied with Hints concerning the Means of Improving the Condition of the Natives of that Country. By the Rev. William Tennant, A. M. LL. D. and M. A. S. lately one of His Majesty's Chaplains in India. Vol. III. Second Edition. 8vo. pp. 380. Price 9s. bds. Longman and Co. 1808.

DR. T. announces this volume as the termination of his labours on the subject of India. The inquisitive reader will receive it with a measure of real gratitude, as containing additional information, and as being a much more elaborate performance than the former volumes. At the same time, he may not regret that it should be the conclusion; judging that three good sized volumes are quite as much as the public can reasonably claim from the author, and that they do or might contain as much additional valuable knowledge as the writer is qualified to contribute to the public stock,—that they consequently occupy for him a sufficient space in that most enormous mass of composition and compilation, which the subject is now in the full course of creating. Dr. T. is not exactly one of those few writers, who, after communicating the substance of what they know, can still attract their readers through new volumes on the same subject by the mere beauties of their authorship. He will fare very fortunately, if those who take the trouble of reading his work shall be so much of his own opinion respecting its solid value, as to share in his indifference about its literary faults. Those faults are of such a nature and extent, as to require

no ordinary measure and value of knowledge as an atonement. The composition is very slovenly, and often incorrect. In the pride of reflecting that he was writing about India, and writing about it as a person who had actually been there, and that by the subject and by this circumstance he had a great advantage over the majority of book-manufacturers in this country, (a pride not attempted to be concealed in our author's writings), he seems to have accounted himself absolved from the obligation,—perhaps even thought it would be generous to leave humbler scribes the merit,—of endeavouring at general neatness of language, at conformity to the plainest rules of grammar, completeness in the construction of sentences, and clear connexion and succession in reasoning. With all due apprehension, however, of the greatness of the subject, with all imaginable veneration for India, where Dr. Tennant has been, where fortunes are made, where the Marquis Wellesley has built a superb palace, where a few English soldiers have often frightened a pagan army out of sight almost as easily as if it had been composed of rabbits; where a faggot, or a wheelbarrow-full of mud, will make a dozen of gods, and where simpletons are reckoned by the million,—with all due impressions of so splendid a subject, it is yet difficult to consent it should overawe the laws of correct writing into an acquiescence in such forms of expression as the following. ‘They attempted to form, at once, all those different chiefs collectively, into a combination.’—‘the Zemindar illegally acquired by partial rent-rolls, and by *secreting* the lands and rents, &c.’—‘these abuses were far surpassed by the *exactions* which were *imposed* at the markets’—‘who enjoy the peculiar felicity of hardly ever having been suspected of *undue partiality*’—‘to unfit the members of our Universities from affording much assistance in so important a discussion’—‘these labourers prosecute the task by *means* that are *impracticable*’—‘this product affords the universal beverage of all ranks.’ We ought to learn from such an expression as the following, that the ancient Roman power is still very formidable; ‘much probably is owing to the *deprecated* ambition of that celebrated nation.’ There ought to have been at least a lucid belt of context to reflect some meaning round a sentence like this: ‘It will not, however, be denied that a continued series of victories gained by Europeans must have forced the stream of this calamity (war) with peculiar aim against those princes whom it endangered, either in their power, independence, or personal safety.’ p. 125.

We think that no severity of criticism can well be too much for writers, who at the present day scorn to take the

trouble of observing the ordinary proprieties of language, unless they are convinced that the 'people are actually perishing for lack of the knowledge,' which they are thus breaking down the just laws of both writing and thinking in their hurry to impart. It is not solely in bad constructions of language, that Dr. T. is willing to shew his readers what liberties a man becomes intitled to take from having doubled the Cape of Good Hope. His pages are suffered to abound with careless assertions, sometimes apparently of very imperfect meaning, sometimes thrown out as if just to take their chance of being right or wrong, (the author scorning to be under any responsibility about them,) and sometimes palpably absurd. For example, after mentioning a late native Asiatic scholar, and agent of the British government, Tuffusil Hossein Khan, he says, 'the charge against the Orientals of tasteless floridity, of unchaste ornaments, and of inaccurate and superficial knowledge of all scientific learning, by his writings has either been greatly weakened or completely overthrown.' p. 364. Just as all the Asiatic dreamers and ravers of what the courtesy of Europeans has admitted under the denominations of philosophy, history, and poetry, were embodied and identified in this one man; as if some writings of his, thrown on the enormous heap of ancient or modern oriental trash, had by some magic obliterated all the intellectual drivelling, the purple extravagance, and the gaudy scarlet coloured diction, of the whole precious assemblage. — After stating the benevolent practical effects of Christianity on human society, and the moral contrast between the Christian and pagan nations, he adds, 'The very imperfections, however, of heathenism, seem to set limits to its extent and duration.' And this assertion is not followed by any thing calculated to ascertain its meaning, nor by any guess at the period when the Hindoo superstition, for instance, may be expected to destroy itself by its own depravity. — Speaking of inoculation, and the 'Jennerian improvement of the discovery,' he says, 'Taken together they assuredly constitute the most solid benefit that one portion of the human race has ever conferred upon another,' and does not seem aware of a possibility of any reader's recollecting the art of printing, or of conveyance from one region to another of Christian knowledge. Nor when, in another place, he lays it down as general truth, on the narrow basis of the particular fact of the Roman conquests, 'that no nation can carry its conquests to any great distance without carrying also the use of arts,' does he betray any sign of ever having heard of the Huns, or Tartars. It is also forgotten to be stated

what improvements, of the nature of civilization, accompanied or followed the establishment of the late Mahratta empire by the most signal course of conquest, except the British, that has for some ages been witnessed in the East.—As another very needless display of the difference which the Doctor puts between his own understanding and that of his readers, it is worth mentioning that the most formidable personage that has ever appeared on the earth since Timour, a personage before whom the whole policy and power of the civilized world are sinking, is disposed of with the most pleasant facility, as ‘an upstart, distinguished by no depth of policy.’ It is peculiarly consoling to dwell on this term ‘upstart,’ since, whatever advantages perverse fortune may have hitherto flung at the shallow head of the man, it cannot be in the nature of things, but he must be beaten in the long run by the profound talent confessedly inseparable from hereditary rank.

Our author has an extraordinary faculty of maintaining a perfect gravity, in uttering truisms as important observations; important, not in the manner of those self-evident propositions which are sometimes requisite to be formally laid down as the basis of reasoning, but important *per se*. For instance, we are here informed that, ‘the internal energies of a free, commercial, and enterprising nation, are great, yet, by adverse circumstances they may not only be weakened, but ultimately destroyed’ (p. 39.); which proposition may be simplified, generalized, and shortened into this, that any thing may be injured or destroyed by a cause which is competent to injure or destroy it; and this would perhaps be related, not very remotely, to that train of propositions (‘whatever is, is,’ &c. &c.) the grave inanity of which so vexed Locke.—To exhibit the author’s loose and rambling mode of reasoning, it would be requisite to give room, which cannot be afforded for such a purpose, for whole paragraphs and pages, as examples. Often when it will not be denied that the drift and conclusion of the reasoning are just, and when the question is of such importance that the reader will be anxious to apprehend the argument clearly, he will fretfully perceive that the process is conducted in a careless, crude, and inconsequential manner; insomuch that he is forced to take the Doctor’s premises, and try to get at a conclusion by some straighter and plainer road.

In the few preceding observations, we have been actuated by no feeling but that just discontent, which is excited at seeing with what self-complacency men of learning and information can waste the time, and contribute to spoil

intellectual habits, of the reading part of the community. Those habits are bad enough in all conscience without the assistance. There is little enough order in statement, clearness and concentration of reasoning, and simplicity and precision of language, even among those who are not completely absorbed in either business or dissipation, and who employ a tolerable portion of their life in inquiry. It might reasonably be expected, that when a man of intelligence and a scholar intends to occupy their time and attention to a large amount with what he is writing, he would be anxious not only to communicate a certain quantity of knowledge, but to communicate it in a manner that should have the effect of a sound discipline to their minds; that he would make a severe effort so to dispose and condense the statements, and to give such a perfect construction to the reasoning and the language, that the readers might be trained to logical thinking and good taste, an advantage of greater value than that of merely getting the knowledge of a certain number of facts more than they knew before. The neglect of this grand duty of an author would be inexcusable, even if he were not seeking general attention to his subject and his book, but merely intending a statement of some particular matters of fact for the information of a particular class of persons, the young writers and cadets, for instance, who are preparing for the India service; since if India be so important as every maker of a book on the subject avers and continually repeats, there is very good reason why writers and cadets should be habituated to beware of tolerating themselves in random assertions, trivial observations, or loose reasoning. But Dr. T. did not intend his book to be confined to this specific use. He knew that India was becoming one of the subjects, of which intelligent men throughout the country are expected to have some knowledge; he probably intended his work as a kind of *Vade-Mecum* (though not of the most commodious bulk for such a kind of servant); and yet he thought it quite beneath him (having been in India) to take the time and pains to reform his manuscript to that moderate state of completeness, without which a book is in some degree mischievous to the intellectual discipline of its readers.

The value of the knowledge conveyed in the work, made well worth while that it should have been wrought to its completeness; for the author supplies, in this volume especially, a very good share of that kind of information, which is received with gratitude by persons who are wishing to appear, in general conversation, respectable on the

subject of India, and the economy of the British government in that quarter.

The design of this volume, is to describe the beneficent effects of the English government on the moral and political state of India, and to suggest and urge the proper measures for rendering those effects more complete and securing their permanence: the description necessarily includes many facts illustrative of the execrable quality and policy of the native governments, so many of the wretched subjects of which have been rescued by the English cannon. The author has evidently expended much labour on the subject, though he has employed too little on the book. Yet of the book he intimates no diffident opinion when he says, (we are not certain whether of this volume separately, or of the whole work,) 'Should the young adventurer to India honour it with a perusal, he may venture to assure him, that he will possess more knowledge of the country and its inhabitants, than the author himself could obtain when he visited it, after much pains and extensive reading.' This implies, that much of what the work contains was learnt by the author's personal observation, or from such testimony on the spot as he had the means of verifying. And, so instructed, he demands to be received on his own authority, unsupported, except in a very few instances, by the production of any of that written or other testimony on which he must necessarily have relied in many parts of his work. This forbearance of reference to his authorities, of whatever nature they are, is justified by a reason which was probably never before assigned for a similar omission, by any writer whose work included a considerable portion of controverted history.

'Of the truth of the greater part of the positions attempted to be proved in the foregoing pages, the author, from having been for several years an eye witness of Indian manners, had the fullest proof and conviction: For this reason, chiefly, the ostentatious display of documents and authorities to confirm his reasonings, or to authenticate the facts, has been avoided. Abundance of these might, no doubt, have been adduced; but, *as they could furnish no additional evidence to his own mind*, he was not aware that they might have afforded greater confidence to the reader who had not the same previous impressions.' p. 350.

Now the reason noted by the Italics in this passage, will be admitted as quite sufficient for the omission of the documents and authorities, in stating such facts as lay within the scope of the author's personal inspection, and in reasoning from them. But the same omission obtains, and reduces the reader to the same dependence on the author's

single authority, in the part of this volume which rapidly and in a spirited manner narrates the progress, by conquest, of the British empire in India. And the prominent object of this historical sketch is to justify all the wars which the English have waged in that country, and especially to celebrate, with the intensest eulogy, all the military proceedings of Marquis Wellesley, the most auspicious star of nobility, according to our author, that ever rose from the western horizon to shed the light of *peace* and joy on the plains of Hindostan. We should have thought Dr. T. might have been aware this subject ought not to have been touched by any man not surrounded by 'documents and authorities' to the breadth of about a mile square, and qualified and prompt to lead the inquirer to each, in its turn, of the papers or piles of papers over this delightful area, — if indeed it were not certain that they would both come to their natural death long enough before they had finished the investigation. Declining such research and reference, it was easy for Dr. T. to make a most magnificent epic, in which ambition and valour, though burning the view of glory, are seen waiting with almost the forbearance of a couple of quakers, under the solemn restraint of justice, and at last bursting forth to battle and contest only when the alternative arrived, unprovoked, of fighting or perishing. And then the conqueror displayed a clemency unparalleled, as if by a sublime and Christian vengeance for having been driven to the necessity of conquering. As to the career of the Marquis Wellesley, never was there such a combination of prudence and daring, of promptitude and generous delay, of boundless ambition and scrupulous rectitude. A huge gang of pagan and Mahomedan princes and chiefs, inspirited and directed by the French, leaguings against the British empire; the Marquis, by an astonishing sagacity, descried the conspiracy; he doubtless forebode it as the approach of war and conquest, he prepared for it, he left it to develope itself; and then, by his generals at least, he went, he saw, he conquered. Our historian makes it so clear always that the war was inevitable, the part of the British, and that had they delayed its commencement another month they had been undone. Now, we are not taking upon us to contradict one particle of this; nay, we should think it might be probably surmised, that a Christian government, which has shewn such profound reverence for the idols of Hindostan, would, for religion's sake, make conscience respecting the souls of their worshippers. But we mean to say, that Dr. Tennant cannot seriously expect that a history, which thus un-

ceremoniously assumes every thing in favour of the English should be held of the smallest authority. He might surely have considered that such a view of the matter was at any rate a thing to be *proved*, not to be *assumed*. And this proof, admitting it to have been practicable, would have required such an analysis of a mass of documents, as had been quite out of place in a work like the present; documents which, as far as courage has any where been found to prosecute the onerous investigation, have satisfied no examiner, not predetermined to be satisfied, of the immaculate purity of British motives and measures in all the Indian wars. We repeat, such a thing was not to be assumed unless it were self-evident that the power, which has for many years been fiercely intent on war nearer home must necessarily be all peace, and forbearance, and more scrupulosity, in the East, — where conquest was so easy where so many circumstances would furnish commodious pretexts, where the transactions have been, from distance and defective information, so little within the cognizance of the national judgement, and where (contrary, we confess, to what we have just admitted as the antecedent probability) the multitude of the gods, which the English have had the piety to revere, has not been clearly proved to reinforce their virtue by a sense of accountableness to divine government. Nor can the rectitude of the martial economy of India, during the periods in which it has been directed by the particular individuals whom Dr. T. singles out to be invested in the very thickest of his eulogy, be assumed on the strength of the personal qualities, so well known at home, of those individuals; unless arrogance and impetuosity are liable to be transmuted into their opposites on the outward bound passage, somewhere between Gravesend and Calcutta, and to recover themselves at the same point of latitude and longitude on the return. A similar law of nature, operating somewhere in the Indian Ocean must have been also the cause of the astonishing and infallible foresight which, according to Dr. T., was displayed immediately on the arrival in India, by his most favourite hero and statesman; a personage who gained some notoriety, a little while before he went, by an elaborate speech in parliament, demonstrating that in nine weeks precisely the French republican armies must disband and disappear.

Our author's courage, in justifying in the gross the policy by which we have acquired so large a portion of Asia, is the more conspicuous, as he accepts for them all the responsibility which could attach to wars with any other power.

ers, declining the benefit of one plausible argument in indication, namely, the intrinsic nullity of the political rights of many of the Indian sovereigns. He admits with all gravity the indefeasible claims, the 'divine right' (we suppose it must be) of each royal barbarian proprietor of slaves, provided he does not hold this possession by usurpation from a more rightful barbarian. And he speaks with apparent exultation of the return of the old Mysore dynasty, through the generosity or policy of the British at the conquest of that kingdom, to a semblance of the royal state of which they had been deprived forty years by Hyder and Tippoo. Now when we read of such persons, as Dr. T. and all other writers on India describe many of the Mahomedan and Hindoo sovereigns and chiefs to be,—miscreants incessantly mad on the plunder and slaughter of one another's subjects, practising all manner of oppressions on their own, and as ignorant of all the wise and useful principles of governing as the very wolves and hyænas whose appropriate virtues they emulate and excel, we know that such persons have no right to be rulers of mankind, in whatsoever manner they have become such; and therefore, if there were any great civilized power, that, together with a concern for the security of its own territories, felt a profound and really disinterested solicitude to mend the condition of the miserable population continually crushed and lacerated by these tyrants, we are not sure it would be bound, in morality, to be exceedingly nice about the manner of demolishing their thrones. But as England is not so romantic a power as to make conquests from pure benevolence, we approve Dr. Tennant's declining to employ this commendious argument, and judging the merits of the controversy between the British and native powers on the principle of their having equal right in their respective territories. But the question taken on this ground is hopelessly involved in all the intricacy created by mutual ambition, contention, intrigue, and encroachment. The Doctor's wisest course, therefore, would probably have been, not to advance one word about it; but to commence by saying, since, as a matter of fact, the British empire in Asia has attained, wrong or right, a prodigious extent and power, since, whether acquired wrong or right, no one can dispute its relinquishment, it is worth while to examine the effects it has already produced, and what means may be suggested for rendering it still more beneficial to the inhabitants.—Still Dr. T.'s brief narration, if we put its justificatory purpose out of view, may be of service to some other person.

readers, as stating the order in which our last Indian wars took place, the powers combined or single that we had to fight, the quick successes, and the wonderful results. The Mahratta confederacy was regarded, on its opening out, as one of the most formidable antagonists that had ever tried the British strength in the East. The British promptly committed themselves to the trial; and the issue to which they brought it, as related in the following sentences, will not at all raise their military reputation, as it amounts to no more than a proof that a brace or two of wild cats are ill advised to set upon a lion.

‘In the short space of three months, a succession of events had taken place, of such importance as completely to change the relative condition of the British empire, and the different states of India. Seven hundred pieces of cannon were taken from the enemy, eight fortresses subdued, either by siege or escalade, their immense armies routed or dispersed, and the force of the French and Mahratta confederacy crushed, throughout a territory which extends a thousand miles square.’

‘Thus in every quarter of this extended warfare was the British nation triumphant. On the shores of Guzurat and Balasore, on the mountains of the Deccan, and in the plains of Delhi, her banners were supported with equal energy and spirit, and victory every where continued steadily to follow them.’ p. 24.

Dr. T. at length cools from battle and victory, into the recollection, that it is the historian's duty to hint the evil, if any such there be, as well as celebrate the good; and we were sincerely gratified to see that his admiration of the peerless Wellesleys was capable of admitting, that the pagan cowards might be beaten or frightened at the cost of full as many guineas as the feat was worth.

‘The future narrator of our late campaigns in the East may probably remark, that they have been almost uniformly attended with lavish expenditure. Although the Mahratta war continued only the space of a few months, and the hostilities against Tippoo were concluded with almost equal dispatch, yet a debt had been contracted upon the treasury of upwards of thirty millions sterling. Had the operations been protracted by any unfortunate event, or had they lasted the usual period of such immense undertakings, success would have been doubtful, or rather unattainable from the impossibility of commanding a sum adequate to their expence. In India, where the rate of interest is so enormous, and where war is an occurrence happily so frequent, its expence must be reduced to a scale more nearly corresponding to the resources of the country. In the progress of increasing territory, and of annually accumulating debt, our career in Asia is rapid and dangerous; nor is it difficult to foresee that abyss of destruction into which even a series of victories must ultimately lead.’ p. 31.

The middle part of this paragraph seems to us no less than an acknowledgement, that those wars were prosecuted on such a scale of expence as would have destroyed the British empire in Asia, by giving the final victory to its enemies, if the course of the war had not proved shorter and more decisive than it was right to reckon upon before the experiment. It is not easy to conceive a more emphatical condemnation of the conduct of a government.—To help the reader to some distant guess at the unparalleled pitch of that extravagance, which, besides consuming the regular resources, could bring such a debt in such a space of time, it is worth while to cite an ill constructed but intelligible sentence from another part, where, speaking of the Mahratta empire while in its full power, he says, 'Its known revenue has been found to amount to upwards of seventeen millions sterling. These resources, however ample, are in India far more efficient than in Europe, for they have been, on experiment, found adequate to the establishment, and constant support of an army of upwards of 300,000 men!' p. 6. Now we are not informed of the extent of the force employed in the war with Tippoo, but Dr. T. says, 'the army brought into the field against the Mahrattas, amounted to 55,000, after providing for the defence of the interior!'

The main substance of the work before us does not require much comment. Whatever be the good or evil arising to this country from the possession of India, (the evil, at least, palpable and flagrant, in the depravation of our moral principles and political institutions,) no one doubts that the people of Hindostan are deriving great and growing advantage from our ridding them of the detestable oppressors and rangers, who have been so long exercising their royal right of devouring them. Putting out of the question the mischievous influences on our own nation, we cannot but earnestly wish, whatever may become of the Indian sovereigns, and their royal divine right of playing the game of Nimrod across a hundred thousand square miles, that the British government may become ten fold more consolidated over that country than it is. It appears the only chance for civilization, including under the term whatever knowledge is the most conducive to the introduction of the true religion, that has ever, in the whole lapse of time, been afforded to an immense multitude of most wretched slaves of tyrants and superstition. The work before us supplies much valuable information of the measures already adopted in favour of that degraded population, of the beneficial effect which has become apparent even in the very short period since the termination of our recent war. The grand advantage which was to be sought, as antecedent

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and introductory to all others, the putting an end to the state of constant war among the native powers, appears to have been in a great measure secured. Many of them indeed have been pacified by an expedient of the most infallible efficacy, the annihilation of their power, and the absorption of their dominions by the British empire; which would appear to them a more marvellous monster than any in their whole mythology, if nature had not been very parsimonious to them in the article of thinking faculty. Those whose turn is not yet come for making this complete surrender, have been bound to keep the peace by the contrivance, very justly applauded by our author, of a British subsidiary force stationed within their territories, at all times exercising the vigilance, and in readiness to exercise the power, necessary to keep the crowned imps of Moloch in proper order.—The state of the police, and of the administration of justice, has been greatly reformed; and a short extract will shew that it was quite time, and that, saving always the respect due to the regal personages who permitted or promoted the abuses, no measure tending to effect that reform could well be too violent.

‘When it is asserted that the police of the native governments, and the whole system of their judicial establishments, is corrupt and defective it is not meant that this fact should rest on general averments. Every step the traveller advances actual proof of the assertion presents itself; he must every where meet the *corpus delicti* in a substantive form. Beyond the limits of European jurisdiction, you can no where pass without almost daily beholding some marauding parties engaged in acts of plunder, robbery, or assassination; and, to an European, the punishment of these enormities might appear almost equally lawless and irregular with the commission. The culprit, on suspicion, is hurried away before the amildar, and after a few loose questions regarding his criminality, (perhaps without even the semblance of a trial) he is mutilated, trod with elephants or beheaded; not so much to satisfy justice, as to appease the vengeance of an infuriated chieftain, on his progress through the country, with an armed rabble, who assist him to monopolize in his own person the trade of rapine and oppression.’ p. 110.

The author describes, at great length, the former condition of the ryots or cultivators, the new system which has been introduced as to the tenure of lands, and the beneficial results which have already appeared. It is stated that, universally, the sovereign was the absolute proprietor of the land, that it was held in allotments by officers named zemindars, and that, between the claims of the prince and the villanies of the zemindar, the cultivator was reduced to the most miserable reptile that crawled on the ground. The wisdom of the new system, which has vested the property in the zemindar

making them at the same time accountable to the British government for their treatment of the ryuts, is argued, pro and con, by our author, who decides that experience has declared in its favour. The ryut, however, after all that has been done for him, is not a person who would appear with any great advantage among the portly farmers of Devizes market.

‘The state of the country, as well as the small capital of the farmer in the East, has limited the possession of each occupant to the pitiful extent of about ten or twelve acres; a space of ground so limited, even admitting the profits to be at the same rate as in England, must at once reduce the emoluments of a ryut to that of a most scanty subsistence. The fact is so: there neither *is*, nor ever *was*, any thing like wealth or even general plenty among that class of men in any part of India.’ p. 111.

The Doctor sensibly discusses several general expedients for the amelioration of the condition of the people, though we rather question with what right, after having (p. 181.) declared ‘against all rash and *untried experiments* among the natives of Asia.’ He suggests, however, various methods for promoting their agriculture, manufactures, and knowledge. It was natural for him to take some notice of Missions, which, however, he had better have let alone, till he had become sufficiently informed on the subject to avoid the folly of passing a sweeping sentence of ‘ignorance’ on our missionaries in India, (p. 280.) of asserting that ‘experience has proved a good education bestowed on youth to be the only expedient that has hitherto gained a single rational and sincere convert to our faith,’ and of invidiously contrasting schools with the labours of the missionaries, with a supercilious contempt of the latter, just as if schools were things of which no missionary had ever dreamed, as if every mission had not been partly and earnestly directed to their formation, and every missionary glad to assist in the management. When the Doctor, with that peculiar air of self-complacency which always accompanies him, speaks of the ‘transient impressions made on their minds (those of the Hindoos) by the loose discourses of ignorant missionaries,’ the simple reader would fully conclude that nothing like the glimmer of knowledge or learning to be seen about any missionary in India; but what would we think of the Doctor, when he found out the state of the matter? It is not, however, to be understood, that our author is one of the enemies of the introduction of Christianity in India; on the contrary, he is sincerely anxious for such a consummation of all we have done for the people there; he rests his expectations on the operation, in the first instance, of more secular means than those which have been chiefly contemplated by the friends of Indian conversion.

ART. VIII. *The British Flora*, or a Systematic Arrangement of British Plants. By John Hull, M. D. Second Edition, 2 Vols. 8vo. Vol. I. Monandria—Polygamia. pp. 330. price 9s. Bickerstaff.

UNCONNECTED fragments of knowledge, though they flatter the vanity of the possessor, are seldom found to increase his happiness or enlarge his powers. To enjoy the pursuits of science, we must not only add to our stock of facts, but know in what manner each new addition is related to our former stock. The fatiguing dulness of elementary learning, is chiefly owing to the difficulty of introducing into the mind a new train of ideas, which we are as yet incapable of connecting with what we already possess. Crude incoherent facts, however important in themselves, are nevertheless, till their bearing on ascertained points of science is determined, till they are properly arranged in the system of the understanding, mere blots on the map of memory, as useless as they are unsatisfactory.

If this is true with respect to the general acquisition of knowledge, it is still more so in its particular branches. A transient view of the starry heavens may delight and elevate our minds; but how much is our pleasure increased, when introduced by astronomy to a personal acquaintance with the individuals of the splendid company; when our reason exercises itself upon their connexion and their motions, rendering our knowledge at the same time subservient, not merely to the amusement, but to the welfare of mankind; and when we apply the calculations of analysis to the examination of their courses, and prove, by methods which exert the most exalted ingenuity of the human mind, that the cause of every apparently accidental deviation from obvious regularity is as simple as the fiat which called the system into existence. Even the merest trifles, when duly connected, afford a pleasure (though in some cases at the expence of more valuable improvement) which they never could furnish while contemplated only as distinct individuals. A rusty medal, a worm-eaten manuscript, a black-letter missal, a tattered etching, a small painting, a non-descript moth, afford a gratification to the connoisseur which gold or jewels cannot supply; and which arises not from their intrinsic value or beauty, but from the information they convey immediately arranging them amidst a system of ideas with which he is conversant, and in which he precisely knows its place. It is in a manner very dissimilar, that the most exquisite paintings in museums are composed of individual pins or particles, which taken separately are inconsiderable and unsightly. Whether the subject, however, be a proper object for the lash of the satirist,

the sneer of the philosopher, the blame of the moralist, and the reproof of the Christian, is a question to be determined by the comparative value of the effect produced and the powers expended. The hours, days, and weeks, which would be most unprofitably spent in embroidering a piece without harmony, keeping, or effect, or in mimicking Chinese ugliness with all the diligence necessary to decypher a manuscript of Herculaneum, might have been laudably employed, no doubt, in the more agreeable recreation of drawing. We can hardly approve the labours of the Dutch collector, who devotes all the energies of his mind to distinguishing and naming the varieties of a single species of tulip, or genus of shells; but it would be unjust to class with him, the scientific botanist, who endeavours to obtain a general view of the whole vegetable creation of his country, or to study its connexion with that of foreign climes.

Formerly, indeed, this required so much labour, and was so imperfectly effected, for want of the assistance of a system to facilitate the arrangement and union of observations, that the extension of botanic knowledge beyond the flower garden appeared rather a toil, than a pleasure; and, unfortunately, the greater the progress the more intricate the maze. We are not afraid of being contradicted by those, who are conversant with the vague and perplexing arrangements of the earlier botanists, when we assert, that it required more labour to discriminate and classify a plant among the number then discovered, than it does, at present, among the infinitely greater number with which the science, since that period, has been enriched. Teaching or learning botany without system, or with a mere outline of the Linnean or any other system, instead of being a compendious way, is mere waste of time and labour; and instead of procuring pleasure, utility, and enlargement of mind, most generally ends either in vanity or disgust, the usual results of superficial knowledge. It is with regret we have seen it produce these effects,—instead of becoming a pleasing relaxation from severer studies; a powerful incentive to exchange unnecessary confinement for air and exercise; the means of rescuing many a vacant hour from listless indolence, or busy trifling; the soother of melancholy, and the preventive of corruption. Convinced as we are that it fails of affording these benefits, principally, because it is not systematically pursued at first, we welcome a work calculated to promote the study of botany on rational principles with a pleasure, and esteem it of an importance, not measured by its typographical elegance, its high price, or its originality. Considering the probable utility of Dr. Hull's little volume, we esteem it a far more valuable addition to the works pub-

lished on the science of botany, than Dr. Thornton's splendid folio.

Hudson's valuable *Flora Anglica*, on account of its age, is naturally deficient in the newer discoveries; besides being locked up from the perusal of many, on account of the preservation of the Latin phraseology. The classical *Flora Britannica* of Dr. Smith, which will probably remain the standard of all future Floras of this kingdom, besides being less generally useful from the cause just mentioned, is not altogether calculated for the convenience either of the pockets or purses of many who wish to have a compendium of English botany. And though the accommodation of such as are unacquainted with the Latin language is amply provided for in Withering's Arrangement, yet, notwithstanding the ability with which many parts are drawn up, the execution is so unequal, its deficiencies and redundancies so considerable, the reformed, or rather mutilated system adopted in the last editions so objectionable, that it stands greatly in need of a thorough revision,—which, however, could not render it, after all, commodious for the pocket. The want of a correct Pocket Flora of Britain, in the English language, Dr. Hull has endeavoured to supply; and the work before us is the first volume, of the much improved second edition of his work. It must be immediately evident, that the very nature of the book precludes the display of great originality. It professes not to exhibit new systems, or hitherto unpublished discoveries; but merely to arrange, according to an approved system, discoveries already made known, substituting an English terminology for the usual technical language of botany.

The first part of this duty, Dr. H. fulfils with a laudable, though perhaps overstrained scrupulosity, adhering with religious strictness to the Linnean system. We own, that, though we think Dr. Smith's alterations in the latter classes a material improvement of this system, we are much more disposed to forgive the merely transient notice of them by Dr. H. than to sanction the destruction of these, and the foregoing class, proposed by Thunberg. In general, our author makes Smith his guide, though he still retains several obsolete appellations referring them to their places as more recently determined. *Hyacinthus*, *Melissa*, *Myagrum*, *Athanasia*, *Filago*, *Cratægea* and *Sorbus* appear in their old stations, but are referred to the genera, to which the British species are found to belong. The principal deviations from the *Flora Britannica*, consist in the description of *Tofieldia palustris* as *Helonias borealis* from the authority of Willdenow, the division of the genus *Eri-*

into *Menziesia*, *Erica*, and *Calluna*\*; and the alterations in the class Gynandria, according to the ideas of Swartz in his paper on the Orchideæ adopted by Willdenow. As some of our botanical friends may not yet have had an opportunity of becoming acquainted with the revolution which this class has undergone, we hope that the following table of the present arrangement of the British species, will not be unacceptable.

## CLASS XX. GYNANDRIA.

ORDER I. MONANDRIA. (no longer *Diandria*, the supposed two stamens, being now esteemed only two masses of pollen, adhering to the two cells of a single anther.)

1. *Orchideæ*, spurred.

ORCHIS. *Cor.* 5-petalled: upper petal arched. *Lip* spurred underneath at the base. *Anthers* terminal, adnate.

*O.* 1. *bifolia*. *O.* 2. *pyramidalis*. *O.* 3. *morio*. *O.* 4. *mascula*. *O.* 5. *ustulata*. *O.* 6. *militaris*. *O.* 7. *fusca*. (*O. militaris*  $\beta$ . Sm.) *O.* 8. *hircina* (*Satyrium hircinum*, Lin. and Sm.) *O.* 9. *latifolia*. *O.* 10. *maculata*. *O.* 11. *conopsea*. *O.* 12. *viridis* (*Satyrium viride*. Lin. and Sm.) *O.* 13. *albida* (*Satyrium albidum*. Lin. and Sm.)

2. *Orchideæ*, spurless.

OPHRYS. *Cor.* somewhat ringent, 5-petalled; petals spreading. *Lip*, from the base of the style, spurless spreading. *Anther*. terminal, adnate. *Op.* 1. *monorchis*. *Op.* 2. *anthropophora*. *Op.* 3. *myodes* (*Op. insectifera* & *myodes*. Lin. *muscifera* Huds. Sm.) *Op.* 4. *apifera*. *Op.* 5. *aranifera*.

NEOTTIA. *Cor.* ringent, 5-petalled; outer lateral petals connected anteriorly about the ventricose base of the lip. *Anther* parallel to the acuminate style, inserted posteriorly. *N.* 1. *spiralis*. (*Ophris spiralis*. Lin. Sm.) *N.* 2. *repens*. (*Satyrium repens*. Lin. Sm.)

EPIPACTIS. *Cor.* 5-petalled, erect-spreading. *Lip* spurless. *Anther* lid-like, persisting. *Pollen* powdery-granulated.

*E.* 1. *latifolia*, (*Serapias Helleborina* and Lin. *Ser. latifolia* Sm.) *E.* 2. *palustris*, (*Serapias longifolia*  $\gamma$  Lin. *Ser. palustris* Sm.) *E.* 3. *pallens*,

\* MENZIESIA. Smith ic. ined. Willdenow.

*Cal.* 1-leaved, repand. *Cor.* 1-petalled. *Filam.* inserted into the receptacle. *Caps.* superior, 4-celled, 4-valved; dissepiments double, formed by the reflected margins of the valves. *Seeds* many. *M. polifolia*. (*Erica Daboecii*, Lin.)

ERICA. Jussieu.

*Cal.* 4-leaved. *Cor.* 4-cleft persisting. *Filam.* inserted into the receptacle. *Anth.* with 2 pores. *Caps.* superior 4—8-celled, 4—8-valved; dissepiments from the middle of the valves. *Seeds* many. *E.* 1. *Tetralix*. *E.* 2. *cinerea*. *E.* 3. *vagans*.

CALLUNA. Salisbury.

*Cal.* 4-leaved, double; inner large, corol-like. *Cor.* 1-petalled, 4-lobed. *Filam.* inserted into the receptacle. *Caps.* 4-celled, 4-valved, dissepiments single, arising from the column, inserted into the sutures. *Seeds* many.

*C. vulgaris*. (*Erica vulgaris*. Lin.) pp. 111, 112, 113.

(Ser. grandiflora Sm.) *E. 4. ensifolia*, (Ser. ensifolia Sm.) *E. 5. rubra*, (Ser. rubra Sm.) *E. 6. Nidus avis*. (Ophrys nidus avis. Lin. Sm.) *E. 7. Ovata*, (Oph. ovata, Lin. Sm.) *E. 8. Cordata*. (Oph. cordata, Lin. Sm.)

**MALAXIS.** Cor. 5-petalled, spreading, resupinate. Lip. concavo-patulous, ascending. Anther lid-like.

*N. 1. paludosa*, (Ophr. paludosa, Lin.) *M. 2. Læselii*, (Ophr. Læselii. Lin. Sm.)

**CYMBIDIUM.** Cor. 5 petalled, erect or spreading. Lip. concave at the base, spurless; lamina patulous. Anther lid-like, deciduous. Pollen globular.

*C. corallorhizon*, (Ophr. corallorhiza. Lin. Sm.)

**ORDER II. DIANDRIA. CYPRIPEDIUM.**

**ORDER III. HEXANDRIA. ARISTOLOCHIA.** (see pp. 250 & seq.)

Among the additions to the genera and species enumerated by Dr. Smith, we notice the following, which will sufficiently prove that Dr. Hull has not been negligent in collecting the observations of others.

**Genera.** *Ixia*, *Scheuchzeria*, *Oenothera*, *Paeonia*, and *Calendula*.

**Species.** *Salicornia radicans*, *Valeriana Calcitropa*, *V. pyrenaica*, *Ixia Bulbocodium*, *Schoenus monoicus*, *S. fuscus*. *Agrostis fulvus*, *Briza maxima*. *Bromus leptostachyos*. *Avena nuda*. *Gallium spurium*. *Sagina maritima*. *Pulmonaria angustifolia*. *Anagallis coerulea*. *Campanula persicifolia*. *Viola amoena*. *Chenopodium acutifolium*. *Gentiana acaulis*. *Juncus supinus*. *Scheuchzeria palustris*. *Oenothera biennis*, *Oe. pumila*. *Epilobium alpestre*. *Daphne Cneorum*. *Saxifraga hirsuta*, *S. Geum*. *Scleranthus polycarpus*. *Dyanthus barbatus*. *Arenaria ciliata*, *A. fasciculata*. *Sedum Forsterianum*. *Cerastium tomentosum*. *Rosa collina*. *R. Scabriuscula*. *Tilia parvifolia*. *Paeonia corallina*. *Adonis aestivalis*. *Caltha radicans*. *Orobanche rubra*. *Alyssum maritimum*. *Turritis alpina*. *Raphanus maritimus*. *Althaea hirsuta*. *Trifolium stellatum*. *Hieracium aurantiacum*. *Artemisia gallica*. *Centaurea jacea*. *Calendula arvensis*. *Chara Nidifica*, *Ch. translucens*. *Carex Oederi*. *Salix laniceolata*, *S. glauca*, *S. hirta*.

To the introduction of several of these, as indigenous to our islands, or as legitimate species, just objections might be raised; but in a work like this, in which practical utility is kept more in view, than critical accuracy, the error on the side of exclusion is much greater than on the side of admission.

With respect to the manner in which the botanical terms are rendered in English, we are aware that many beginners will complain, that they are as unintelligible as the Latin from which they are generally derived. But the fault, we conceive, is not to be ascribed to the translation, but to the circumstance that every science must have a set of terms of its own, which require study, and would equally require it even if the words made use of were already current in our language. This difference, however, exists in favour

the preservation of the original terms, that, when their meaning is once obtained, each conveys its distinct and appropriate idea; whereas, the ideas attached to the equivalent *English* terms substituted in their place, must always be liable to a degree of vagueness, from the latitude of signification necessarily allowed the latter in common life. The use of an English translation of a scientific work, arises less from the *terms* being rendered in our own language, than from their being *connected* according to our grammatical rules of construction and government. In our own opinion, a translation in the manner sketched by Dr. Smith in his *Elements of Botany* would have been preferable. As the work is professedly for such as are not classical scholars, we highly approve the accentuation of the generic and specific names; which, with a few exceptions, we have found generally correct, and which, we hope, will save our ears some of the tortures from false accents to which they are but too frequently exposed. We wish, however, that Dr. H. had uniformly placed two accents on words exceeding four syllables, as he has done in most cases. His work, upon the whole, is executed with accuracy, diligence, and discretion; and deserves the strongest recommendation to those, who are either entering upon the study of the vegetable creation, or have hitherto only prosecuted it at random, for want of a scientific pocket companion in their native tongue.

As the author wishes to wait for the completion of *Widenow's Species Plantarum*, and *Smith's Flora Britannica*, before he publishes his second volume, there is no probability of its appearing very soon.

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Art. IX. *Philemon, or the Progress of Virtue*, a Poem. By William Laurence Brown, D. Esq. Principal of Marischal College and University, Aberdeen, &c. 2 Vols. 12mo. pp. 495. Edinburgh, Oliphant and Co. Longman and Co. Rivingtons, &c. 1809.

It is always unfortunate for the credit of a work, when the pretensions of its first approach are calculated to raise any kind of expectation which a more familiar acquaintance will not gratify. Horace has judiciously advised the poet, in the proposition of his subject, to be simple and unassuming; and had he lived in the age when books are bought by their advertisements, he would perhaps have recommended, that the design of a performance should exactly correspond with its description.

The poem before us is called '*Philemon, or the progress of virtue*.' These appellations, however, we can by no means regard as convertible or synonymous. '*Philemon*' is not the progress of virtue, whatever that expression may

mean, but the life of a particular personage, who was born of pious parents in the year 1700; and after passing through the discipline of a grammar school, keeping terms at St. Andrew's, and leading a boar over Europe, marries his cousin, settles on a living, and dies respected at the good old age of three score years and ten. It is true, the author has favoured his hero with two or three visions, and placed him under the special patronage of a guardian angel; he has contrived to introduce in the first and second books a summary of sacred and profane history, and a syllabus of university lectures in the fourth: but this management, though highly ingenious, does not, we conceive, quite obviate every objection. A poem that professes 'to trace the progress of virtuous sentiments, principles, and opinions in the human mind,' should converse with general nature, and not with artificial distinctions; and a hero who is to 'exhibit these principles in a corresponding course of action,' should not be the individual of a class, but the representative of virtuous man. Perhaps it may be questioned whether the author, in thus attempting to unite principle and operation, in the same performance, has not subjected himself to needless inconvenience. To the 'kindling majesty' of philosophical truth the muse is never insensible, and she willingly veils herself in the softer and more captivating graces of allegorical description. But versified biography has seldom, if ever, been attempted with any tolerable success; and is indeed, of all subjects, in a poetical point of view, the most untractably stubborn. No thing in nature can be more plain and straight-forward than the conduct of the poem before us; insomuch that we have been more than once chilled with the suspicion, that what was originally prose has been done into verse by a subsequent operation.

The Progress of Virtue is divided into ten books, beginning with childhood, proceeding through the several stages of youth and manhood, and terminating in death. To confer distinction on his native country, our author has made Philemon a Caledonian. He is born among the Grampian mountains, where he remains till the usual period of going to the university. Here he prosecutes his studies upon the whole with laudable diligence. He is betrayed, indeed, into some inaccuracies, from too close an imitation of his friend Eugene, a young man of fortune; but is soon rescued by the timely succour of his guardian angel. Unfortunately, however, at the first ferment of his revulsion, and instigated by the artifice of one Vulpellus, a wolf in sheep's clothing, he composes a satire 'on the spirit occasionally observable in the seat of learning.' For this indiscreet effusion he narrowly escaped

expulsion: but being once extricated, the rest of his time passes on smoothly. He embraces the clerical profession, and upon leaving the university accompanies Eugenio *via* England to the continent. The scene is now successively transferred to the Low Countries, Switzerland, Italy, and France. In this last country, his 'moral principles receive a taint.' His familiarities with Adele, a Parisian lady, are resented by the injured husband. He receives a challenge: but his guardian angel again interposes, and he avoids a duel by decamping with Gallic precipitation. On his return to Scotland, he is fixed in the pastoral office, and married to Clara, a young lady whom, together with her mother, he had rescued in the 'first stage of youth' from a state of absolute starvation, who had been brought up in his father's house, and who had very early taken possession of his heart. He now discharges the duties of his office with exemplary faithfulness. His domestic tranquility, however, is interrupted by the rebellion of 45; on which occasion he comes out in a new character; *cedit toga armis*; and he 'exhibits heroic valour at the battle of Culoden.' After this, the tale languishes till his death, which is perhaps somewhat injudiciously postponed to the year 1770. Such is the plan of this 'poetical Essay;' sufficiently extensive it must be confessed, and sufficiently fruitful in incident, but not quite so susceptible of poetical embellishment. Like Aristotle's animal of ten thousand furlongs, the eye cannot receive it at a view, for the principal subject is lost among the multiplicity of subordinate events. The introduction of so many historical examples, and the dry catalogue of feelings in the beginning of the poem, is extremely inartificial. The sketches of continental scenery and manners, though not unpleasingly executed, are manifestly out of place; and the course of study, in the fourth book, has nothing at all to do with poetry. All this digression partakes of the same littleness, that we have previously objected to the choice of the hero. The business of poetry is to sound the master tones of passion, to seize upon obvious and striking circumstances; her representations are recognized by every eye, and her voice finds an echo in every bosom.

Of the episodes, a minute examination is unnecessary; their connexion with the fable is not always sufficiently close; but what they want in this kind of propriety they perhaps compensate by their interest; and they are uniformly calculated to give efficacy to some moral truth.

The author seems to be most solicitous for the fate of his machinery. It is indeed exceptionable, not because it

is marvellous, but because it is improbable ; because there is no grand catastrophe which it is to hasten or retard and because nothing is effected by it which might not as well have taken place in the common course of things. The two last objections will not easily be obviated ; but the first might have been avoided by adopting the management of Pope, who has judiciously introduced Belinda to her guardian sylph in a morning dream. As for the imp Doulos he deserves no quarter. The vision of Charity is immoderately long ; not to mention that her fiction of Luxury and Pride is copied without acknowledgement from that of Luxury and Avarice in the Spectator. All this celestial intervention is resolved, in the preface, into allegory. In general it may be observed, that the mixture of allegory with real life is heterogeneous ; it startles without pleasing.

In the characters, there is little novelty or discrimination. The greatest fault of the poem is superfluous amplification ; which presents indistinct images to the mind, and which frequently distorts the thoughts from their natural bias to accommodate the rhyme. The similes are more numerous than select : we are not often called upon to admire the manner in which they are introduced, and they are almost always tame and spiritless in their application. It is impossible, too, not to notice the prosaic humility of diction. Poets in general are glad to avail themselves of all the liberties of inversion consistent with perspicuity ; to elevate what is low, dignify what is familiar, and avoid as much as possible those degrading associations which are inseparable from common forms and idiomatic expressions. Dr. B. evidently aims at simplicity : but he has obtained it at the expence of strength and animation.

It would be easy to confirm these remarks by example ; the task, however, is unpleasant, and we willingly select a less exceptionable passage as a specimen.

The following portraiture of Christian graces is sketched with tolerable fancy. We have presumed to curtail a little of its diffusion.

‘ First in the train meek Penitence appears,  
With eyes depressed and cheeks suffused with tears.  
Then Modesty, still blushing through her veil,  
Feels her own work the lowest in the scale :  
While mild Complacence, walking by her side,  
Observes and tells the virtue she would hide.  
Now Temperance, with cheeks where roses blow,  
With eyes of sapphire and with breast of snow,

Displays a form which passion never shook,  
 Each feature placid, and serene each look ;  
 Patience that murmurs not when woes oppress,  
 And Fortitude that braves, or bears distress,  
 And Resignation that contemplates ill  
 To good transmuted by the' unerring will,  
 And Meekness that betrays no angry sound,  
 And Candour breathing harmony around,  
 And sweet Simplicity, unknown to art,  
 That wears an Angel's face, an Angel's heart ;  
 And Piety that spreads her wings to heaven,  
 Each fault amended and each sin forgiven.' Vol. 1. p. 21.

Upon the whole, though our author cannot lay claim to the highest rewards of poetical excellence, he has certainly produced a pleasing tale. It contains many passages, no doubt, which will afford ample scope to the sneering railery and painful sarcasms of those, who are glad of every opportunity to fling their reproaches at piety and virtue. But the censure, which is dictated by an irreligious and infidel spirit, will not produce much impression, we trust, either on the author or the public. We think it impossible for any one whom it is a credit to please, to read *Philemon*, without admiring the pure principles and the amiable benevolence that breathe in every line.

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Art. X. *Observations on Madness and Melancholy*: including practical Remarks on those Diseases; together with Cases: and an Account of their morbid Appearances on Dissection. By John Haslam, late of Pembroke Hall, Cambridge: Member of the Royal College of Surgeons, and Apothecary to Bethlem Hospital. Second Edition. 8vo. pp. 345. Price 9s. Callow, Hayden. 1809.

THOUGH the press has teemed with publications on the very interesting subject of diseased intellect, varying in their merit as well as in their views of the subject, exhibiting considerable ingenuity in their respective theories, as well as novelty in the modes of treatment recommended, yet little, very little important information has been supplied. The history of insanity is necessarily connected with that of the human mind; and while our knowledge of this wonderful part of our composition in a state of health and integrity remains so circumscribed, we can hardly be expected to arrive at such an intimate acquaintance with it when disordered and deranged, as to enable us to proceed with any degree of confidence or certainty in our curative attempts. Metaphysics, theology, physiology, and pathology have been long and arduously engaged in this interesting investigation; but, after all, the limits which separate reason and madness have never

been accurately defined. There cannot be a more striking exemplification of this fact, than we find in a number of individuals, who seem to be heteroclitics in society; who, with an exuberance of sense, have a dearth of what is called common sense; whose ordinary deportment differs greatly from that of the generality of mankind; who have scarcely a movement or sentiment unmarked with singularity; who, being at large, are only termed *characters* or *geniuses*, but, if within the walls of St. Luke's or Bethlem hospital, would be ranked among the most hopeless of incurables, and the placard on each would be *tribus Anticyris Caput insanabile*. Such subjects are certainly predisposed to the worst species of mental malady, and, after being exposed to exciting causes, are often observed to become permanently insane. It is also to be lamented, that, notwithstanding the morbid appearances which have been found in the organ of intellect in those who have died insane, it is impossible to decide which are the causes and which the effects of the disease. It is therefore matter of doubt whether the most simple division of mental maladies, and a practice bordering close upon empirical, would not, in a comparative experiment upon a given number of cases, be ultimately the most successful.

More than ten years have elapsed since the first edition of Mr. Haslam's work was ushered into the world: its bulk is materially increased, but whether its value is augmented in a similar ratio may be a matter of doubt. We believe he has ever since occupied a situation, which no other individual in the kingdom can boast; a situation which furnishes the greatest number and variety of cases, and the best possible opportunities of experience. We therefore seized the volume with no little avidity. We anticipated some valuable additions to his former work; but have only found a new proof of the difficulty of writing any thing satisfactory on diseases of the mind, and still find reason to lament that a complete practical treatise on insanity remains a desideratum.

We now proceed briefly to examine the contents of the volume before us, which, agreeably to established custom opens with a definition of the disease. Here, after observing that there is no word in the English language more deserving of a precise definition than madness, and the difference of opinion of most modern authors on the subject, Mr. H. takes some pains to discover the original meaning of the word, by tracing it back to its source. Here, we think, he exhibits satisfactory proof of patient research and much useless ingenuity, in attempting what is impossible. For, as the cases differ ad infinitum, as no two are exactly alike, and the discrepancy results from such a vast variety of circumstances

the most accurate description of one might be very far from appropriate to any other. In treating this part of his subject, the reasoning of the author seems to have been influenced by the grammatical and metaphysical opinions of Mr. Horne Tooke; and though his speculations are amusing, and in some sense original, they are of no practical importance. As a proof, we offer the following quotation.

‘As far as I have observed respecting the human mind (and I speak with great hesitation and diffidence) it does not possess all those powers and faculties with which the pride of man has thought proper to invest it. By our senses we are enabled to become acquainted with objects, and we are capable of recollecting them in a greater or less degree; the rest appears to be merely a contrivance of language. If mind were actually capable of the operations attributed to it, and possessed of these powers, it would necessarily have been able to create a language expressive of those powers and operations. But the fact is otherwise. The language which characterizes mind and its operations, has been borrowed from external objects: for mind has no language peculiar to itself. A few instances will sufficiently illustrate this position. \*After having committed an offence it is natural to say that the mind feels contrition and sorrow. Contrition is from *cum* and *tero*, to rub together, which cannot possibly have any thing to do with the operations of the mind; which is incapable of rubbing its ideas or notions together. Contrition is a figurative expression, and may possibly mean the act of rubbing out the stain of vice, or wearing down by friction the prominences of sin. If we were to analyze the word sorrow, which is held to be a mental feeling, we should find it to be transferred from bodily sufferance: for the mind is incapable of creating a term correctly expressive of its state, and therefore it became necessary to borrow it from *soreness* of body—see Tooke’s *Diversions of Purley*, vol. II. p. 207, where *sore*, *sorry*, and *sorrow* are clearly made out to be the same word.’

It seems clear enough that Mr. H. has no great reverence for the spiritual part of our being, and, it may be, doubts its existence. But the philological speculations of which he is enamoured, afford no proof that the powers of the mind are overrated either in number or importance, nor any argument in favour of the materialists. It is not to be supposed that the mind can comprehend its own nature, any more than the eye see itself; still less could it be expected to know its own history, which would involve an absolute contradiction, implying that it was both young and old at once. No wonder, then, that the mind should borrow from sensible objects and bodily feelings, the terms by which it conveys to another mind the imperfect notion it forms of its own acts and sensations. Mental and bodily feelings, however, are not the less distinct in their nature, because it is found convenient to express them, if we would be understood, by analogous or identical terms. Sorrow is still

a very different thing from soreness, though the best idea we can form or convey of the suffering of the mind should be furnished by a comparison of it to that of the body.

The second chapter contains a detail of symptoms, in the description of which Mr. H. is very happy. Here we have the result of large experience and acute observation. He informs us that madness is more liable to occasion defect in the organ of hearing than in any other: that, though he scarcely recollects an instance of a lunatic becoming blind, he has met with numbers who were deaf. It is certain, as he remarks, that in maniacs, more delusion is conveyed through the ear than the eye, or any of the other senses. 'Those who are not actually deaf, are troubled with difficulty of hearing and *tinnitus aurium*.' 'In consequence of some affection of the ear, the insane sometimes insist that malicious agents contrive to blow streams of infected air into this organ. Others have conceived, by means of what they term *hearkening wires* and *whiz-pipes*, that various obscenities and blasphemies are forced into their minds; and it is not unusual for those who are in a desponding condition to assert, that they distinctly hear the devil tempting them to self destruction.' Indeed there is no symptom more uniformly present, in several species of insanity, than the listening to fancied voices. We have been often surprised and amused in witnessing the ingenuity, the acuteness, and eloquence, exhibited by some madmen in the disputes with imaginary opponents. At page 71 we have one of the most amusing and singular cases, in proof of the above statement, that we ever met with, but too long for insertion. Mr. Haslam also informs us, that the symptoms are influenced by the position of the body; that bodily occupation and exertion seem to mitigate mental suffering; and that, after a long continued paroxysm, the teguments of the head become loose and may be gathered up in the hand.—He explodes the generally received opinion that maniacs do not suffer from cold, asserting that they are particularly subject to mortifications of the feet.

Our author next defines what has been termed a *lucid interval*, than which, no part of his subject is more interesting and important, either in a medical or juridical point of view. On this topic much has been said, and there is still much room for discussion: for great contrariety of opinion respecting it still exists, as well among medical as laymen.

The third and fourth chapters are made up of cases, the majority of which were published in the former edition. The accompanying dissections tend to confirm the obser-

tions of other pathologists, that organic disease exists in most cases of Mania.

In chapter the fifth, Mr. Haslam details the causes of insanity. Here new reasons are assigned for believing the disease hereditary. He very properly rejects the idea of lunar influence on maniacs. In his division of causes, he adopts the usual genera of moral and physical.

The sixth chapter, on the probable event of the disease, affords much important information, procured from accurate observation, and the records of the institution in which Mr. Haslam has long been an officer. We are willing to allow him the just meed of merit, for the treatment of many parts of his subject; but we cannot pass over in silence his sarcastic remarks on a very important one, in which every enlightened and benevolent mind must feel a peculiar interest. We refer to his observations respecting the influence of different religious opinions on the mind, and that species of mental derangement which has been termed *devotional*. Though Mr. H. professes to institute a generous and tolerant survey of religious opinions, we can give him no credit for liberality. We know enough of the Methodists to affirm, that his reflections on their creed are unjust. It is true, some of the most illiterate of their fraternity 'have assumed the garb of sanctity and the holy office;' and though nearly ignorant perhaps of the first principles of grammar, and possessing but a very limited knowledge of their native language, yet they have rivetted the attention of their auditories, have enforced the most important sentiments with energy and fluency of speech which their calumniators could in vain attempt to imitate, and produced an impression of the most salutary nature where the best logic and finest style would have been ineffectual. The allusion to the assistance of cordials to fix the waverings of belief, is unworthy an enlightened mind; and though this conscientious gentleman sarcastically acknowledges his obligations to the '*Faction of Faith*,' as he terms the Methodists, the supply of the many cases which have furnished his experience of this wretched calamity, we are of opinion he is well qualified to treat them successfully. If moral causes are allowed to produce the diseases in question, moral means of cure may be admitted; and however competent Mr. Haslam may be esteemed in the management of other cases, he should hesitate before we consigned a friend to his care who was suffering under '*devotional insanity*.' His sentiments, on this part of the subject, savour strongly of the principles which prevail among too many of his profession as well as ours; and which render them totally in-

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competent to enter into the feelings and reasonings of this class of patients, or successfully 'minister to a mind diseased.' It is not to be expected that men can appreciate such an expression as 'a wounded spirit,' even in the mouth of an unprejudiced dispassionate Christian, who seem to live as if there were no God. Neither fearing nor worshipping the omnipotent Being, they might with more propriety be pitied as insane, than many humble penitents or sincere believers inordinately oppressed with a sense of guilt and dread of punishment. It has been doubted by judges equally competent with Mr. Haslam and much less prejudiced, whether the term 'religious melancholy' be proper since (without maintaining that all maladies of this description should be ascribed to physical disease) it may very reasonably be suspected, that the melancholy uniformly arise from the want of religion, and that therefore what has been termed devotional insanity may more properly be called melancholy arising from the absence of religious consolation. We therefore cheerfully assent to Mr. H.'s proposition, that it is sinful to accuse religion, which preserves the dignity and integrity of our intellectual faculty, with being the cause of its derangement.

The remainder of the work, is devoted to the important subjects of Management and Medical Treatment. Here we have much that is valuable, but very little that is new; excepting some observations on diet, and objections to the practice of *spouting* or forcing food or medicine upon maniacal patients, with a drawing and description of an instrument for the latter purpose, which, we understand from practitioners who have employed it, deserves the commendations bestowed on it by the inventor. In speaking of remedies, Mr. Haslam seems unnecessarily severe on Dr. Cox from whose publication on the same subject he has filled some pages of his own. He reprobates the Doctor's practice of swinging, and deceiving his patients in some cases and ridicules the idea of benefit expected to arise from continued intoxication in others; but we must confess we see nothing incredible in Dr. C.'s assertions or inadmissible in his reasoning; and as Mr. H. does not appear to have proved, by the result of observation or a detail of facts, the futility of means recommended from actual experience, he is hardly warranted by the usages of science or the laws of philosophizing, to support his objections simply by ridicule. Indeed his method of ridiculing, is the humblest kind; instead of his own wit, he contents himself with giving Dr. Cox's words in Italics. On the subject of emetics, Dr. Cox seems completely at issue with

Haslam; we think the latter, however, has been scarcely just or accurate, when he asserts, (p. 333.) 'In reading over the cases related by Dr. C., there is no one where emetics have been solely employed as agents of cure; they have always been linked with other remedies;' for, upon referring to Dr. C.'s book, we find no less than three cases (pp. 105, 106, and 107) in which emetics alone were successfully employed.

We must here conclude our observations on Mr. Haslam's book; which, notwithstanding many instances of defective style as well as reasoning, and illiberal sarcasms on contemporary authors, is a valuable publication on a very interesting class of maladies. We can recommend it, as being a production of talent and industry, attentive observation and long experience. Though no new modes of practice are detailed, nor much valuable addition made to our stock of resources in the treatment of diseases of the mind, yet we do not hesitate to pronounce Mr. Haslam's work the best practical treatise extant on the subject of Insanity.

Art. XI. *Two Letters to "a Barrister,"* containing, *Strictures on his Work, in Three Parts, entitled, Hints to the Public and the Legislature, on the Nature and Effect of Evangelical Preaching.* By a Looker on. 8vo. pp. 59. Price 1s. 6d. Black, Parry and Co. 1809.

WE find little to complain of in this pamphlet, except that it comes too late. The author entered upon his task with many advantages, and some of them peculiar to himself; with a vigorous and cultivated mind, with considerable observation of life, and with an attachment to genuine religion, not derived from early prepossessions, but from the candid examination of a mature understanding; it is some advantage, also, that he holds himself distinct from the Calvinists, and may therefore be regarded, when speaking of their creed and character, as an unbiassed witness. He has produced a temperate, rational, concise, and satisfactory answer to nearly all the Barrister's misrepresentations; the effect of which, on readers in general, will be not a little increased, by the frankness with which he concedes some unimportant points to his antagonist, and the respect (in our opinion excessive) which he avows for 'ability as an advocate.' He gives the following character of the work he undertakes to answer.

A plenteous assortment of quotations from well-meaning but incautious writers, contributing most liberally to swell the size of your pamphlet, and to enhance their value; these unfortunate quotations, too, set with all the aid which the typographical art could furnish, to give a more invidious construction to the obnoxious passages: a little pompous far-fetched ratiocination about possible improbabilities, and idle speculations respecting effects, which never have, nor are ever likely to take place: these are the precious materials, which, hashed up with a profusion of the most barefaced scurrility, and the most insulting personations, comprise the sum and substance of your much vaunted performance.'

We select two paragraphs, respecting the Barrister's mode of treating the religious magazines and the writings of Bunyan, as a specimen of his neat and conclusive manner.

'It may be easy to extract from the periodical publications circulated amongst Evangelical Christians, a few instances of weakness and absurdity, and to discover in the character and manners of some of the good people, many ludicrous eccentricities: but these are, for the most part, harmless exuberances of feeling, which lead to no moral obliquity. It could be wished, indeed, in every case, that while the affections gave energy to the character, these should, in their turn, be subjected to the controul of the rational faculty. But this happy union of lively feelings and chastened judgment falls not often to the lot of erring humanity.' p. 27.

'The extracts which you have made from Bunyan's writings, with your own typographical illustrations, serve rather to betray the impurity of your own mind, than to prove a want of delicacy in the original author. A prurient and libidinous imagination will never be at a loss to give an offensive import to a passage, which may have been written with the purest intent, and the utmost simplicity of heart.' p. 50.

Some of our readers, perhaps, may find individuals among their acquaintance, who are weak and ignorant enough to be the Barrister's dupes,—to admit his quibbles, believe his falshoods, tremble at his threatenings and prophecies, and conceive an abhorrence for the worst of their countrymen, on account of the acknowledged strictness and imputed depravity of their morals; such readers, we think, will do well to call in the *Looker-on*.

Art. XII. *Satan's Devices exposed*, in Four Sermons, by the Rev. Thomas Knowles, B. A. Curate of Humberstone, in the County of Lincoln. 8vo. pp. 96. Price 2s. 6d. Crosby, Baynes, Seeley, & Co. 1810.

MR. Knowles has our thanks for this excellent little volume on a most important subject. It is adapted to the instruction and comfort of a large portion of professing Christians. The language is plain, but not vulgar; the arguments are close and perspicuous; and the whole bears the stamp of much good sense and piety. These sermons deserve wide circulation, and, if printed in a cheap form, might be distributed with great advantage among the poor. Mr. K. seems to have acquired the art of communicating instruction to the unlearned; and if humanity and Christian benevolence are not empty sounds, the cultivation of this art is intitled to higher praise than the greatest proficiency in philosophy or metaphysics. The *only* instruction which the greater part of a congregation can receive on subjects of importance too vast for conception, must be received through their minister. Shall this minister, then, obsequiously pay his homage to half a dozen of his congregation, whom he imagines to be of more importance than all the rest, in hopes of obtaining, in return, a reputation for science and taste, and send empty away the poor who are looking up to him for the bread of life, and who are perishing for want of knowledge? Let shame burn the face of such a man, and let him be a cinder! A day *will* come, when a kind and condescending attention to the poor of Christ's flock will be duly appreciated, and the wretch,

has bartered the purchase of the Redeemer's blood for the pitiful applause of a vain mortal like himself, shall meet with his merited infamy! When will Christian ministers think the boast of the holy apostle their highest praise? "In the church I would rather speak five words with my understanding, that I might teach others, than ten thousand words in an unknown tongue." We have been led into these remarks by the plain, condescending, and affectionate style of the sermons before us. They are all founded upon the same text (2 Cor. ii. 11), "We are not ignorant of his devices." The following is a summary of particulars which they contain. Sermon I. Young persons tempted to believe, that they are too young to be punished for their sins—that it is soon enough yet for them to repent. Others, that God is too merciful to send any one to hell, that as they have done nobody any harm, they are in no danger—that if God does not give them grace, they are not to blame for living in sin—that as Christ died for all, they are *sure* to be saved by his death—that if they are prosperous, they must be favourites of heaven—and if they are afflicted, their sufferings *here* will exempt them from punishment *hereafter*. Sermon II. The Christian harassed with blasphemous and wicked thoughts, with fears that his day of grace is past—that his past experience is a delusion—and that he has sinned against the Holy Ghost. Sermon III. The Christian tempted to fear,—that as he knows not the *particular* time of his conversion, he is not in a state of acceptance with God—Others tempted to rest in sudden and powerful convictions, whilst they shew no fruits of real conversion—others think that it is an easy matter to get to heaven—that there is no need to shun worldly company and worldly pleasures—but on the contrary, that it would be more useful to society, and more ornamental to religion, to associate freely with the world. Sermon IV. Satan assaults the church of Christ by stirring up violent persecutions against it—by exciting calumny and reproaches against pious Christians—and by raising up false professors and false teachers. Mr. K. has announced that he has in the press "Eighteen sermons, or short and plain discourses for the use of families." We hope to find these sermons deserving of a place among the very few which are really proper for this purpose.

Art. XIII. *The Friendly Call of Truth and Reason to a New Species of Dissenters*; to which are prefixed a Few Observations on the Expediency of Parliamentary Interposition duly to explain, and if necessary to amend the Act of William and Mary, commonly called 'The Toleration Act.' By the Rev. Edward Barry, M. D. 8vo. pp. 150. price 1s. Rivingtons.

Art. XIV. *A Sermon*, preached before the Rev. the Archdeacon and Clergy of the Archdeaconry of Berks, at the Visitation holden at St. Helen's Church, Abingdon, on Wednesday the third of May, 1809. By the Rev. Edward Barry, M. D. Rector of St. Mary, Willingford. 8vo. pp. 26. price 1s. Rivingtons.

Art. XV. *Strictures on a Sermon*, preached by the Rev. E. Barry, M. D. before the Rev. the Archdeacon and Clergy of Berks, at the Visitation at Abingdon, May 3, 1809. By J. Raban. 8vo. pp. 44. price 1s. 6d. Williams and Co.

THE 'new species of dissenters' addressed in the first of these publications, are those who partially or totally give up their attendance

on divine service in certain churches of the establishment, because they think the pulpit is made to contradict the desk, the general strain of the religious instruction not being congenial to the articles of the church, and the doctrine of the Bible; or because the practice of the minister compels them to question the sincerity of his faith. Dr. Barry would certainly have been well employed, (not indeed in recommending an infringement on religious liberty) but in attempting to shew, by a fair statement of facts, and a correct train of reasoning, delivered in a tone of liberality and respect, that such 'dissenters' had no substantial ground for discontent and secession. If this *was* his design, we have only to regret his unfortunate failure. We are apprehensive that the persons he addresses would be but too ready to contend, that many of his statements are unsupported and erroneous, that he grossly misrepresents their opinions, that his argument is loose and sophistical, and that his spirit is arrogant, disingenuous, and uncharitable toward the dissenters, but insinuating and sycophantic toward his superiors in the Church.—In another respect, however, he appears to have been more successful. The Sermon under review informs us, that he has (in consequence, he presumes, of his 'Friendly Call') been presented to the living of St. Mary's, Wallingford. In vain, it seems, was a very earnest and unanimous application made to the Lord Chancellor (Eldon), by the congregation and body corporate, in favour of another clergyman: 'the Chancellor,' says Dr. B. in language equally elegant and modest — 'the Chancellor, with that ability of discernment and integrity which direct his conduct, was not to be influenced in his choice by this sort of meddling; but was pleased, very unexpectedly on my part, to have the presentation made out in my favour;' and what stronger proof can be required of the Chancellor's 'ability of discernment and integrity', or what likelier method conceived of preserving the parishioners and body corporate unshaken in their adherence to the Church? The Sermon, from the text so often assumed to be applicable, Matth. xviii. 7. is a piece of dull, ill written invective against heretics and schismatics, dissenters, methodists, and 'evangelical preachers'; in which Dr. B. recommends, *inter alia*, that on every building 'licensed' (he should have said 'registered') for public worship these words should be affixed in large letters — 'This is a TOLERATED MEETING HOUSE!' He also begs his reverend brethren 'to act wisely the *post* allotted to' them, &c. and with no great delicacy introduces *his* account of the transactions at Wallingford.

Mr. Raban forcibly exposes some of the blunders and absurdities of the Doctor's Sermon, animadverting successively on 'its theological errors, its defective morality, its misrepresentation of the inhabitants of Wallingford, and its illiberality toward the dissenting body at large;' and though he appears to have formed a tolerably accurate estimate of Dr. B.'s pretensions as a scholar, and a divine, he is cautious not to imitate his example by violating the rules of decorum. Possibly this circumspection may partly be attributed to the *warning* or threat said to be given by Dr. B., that he would proceed in the Spiritual Court against any one who should *comment disrespectfully on his preaching or character!* This could not, however, be any reason for omitting to notice the earnest endeavours of Dr. B. to reconcile the malcontents to an intemperate clergyman, (*Friendly Call*, p. 97.)

Resisting every temptation to venture any remarks, that might be censured as *personal*, we only beg leave to recommend the clergy who are said to have requested the publication of Doctor Barry's discourse, to peruse Mr. Raban's *Strictures*, and (if possible) to obtain a sight of the learned Doctor's inestimable *Letters to Mrs. Mestayer*, (12mo. price 5s. 1794) which lately afforded us so much entertainment, that we lament the morbid excess of modesty which induced him to omit them in the list of his publications. What they would chiefly admire in this work, we apprehend, would be the biographical hints relative to the regularity of his education, graduation, and ordination, the singular delicacy and good sense with which he addresses his fair correspondent, the profound veneration he manifests for the heads of the establishment, and his amiable acquiescence under their neglect of his claims to preferment.

Art. XVI. *The Conquest of Canaan*, a Seatonian prize Poem. By George Pryme, Esq. M. A. Fellow of Trinity College Cambridge. 4to. pp. 24. price 2s. Cadell and Davies. 1810.

WE have read this poem with much pleasure. Mr. Pryme displays considerable taste in the selection of his topics, and imagination in adorning them; and, though too little prominence, perhaps, is given to the principal subject, the parts are upon the whole judiciously disposed. The descriptions do not always strike us as possessing distinctive propriety; but the following passage, the conclusion especially, deserves commendation. It refers to the command of universal extirpation.

'Patient submission and resistance meet  
One common fate : the snowy locks of age  
In dust and gore lie clotted : nor the blush  
That mantles on the lovely virgin's cheek  
Alternate yielding to the paly hue  
Of blanching fear ; nor the mute eloquence  
Of helpless infancy, that playful smiles  
In its destroyer's face, can mercy find.  
Haply some generous foe one moment stays  
His lifted hand ; from pity's soft controul  
One moment pauses ; till the dire command  
Rush to his mind ; he turns his head away  
And with a sigh inflicts the mortal wound.' pp. 15—16.

A sentence or two, in vindication of the 'dire command,' would not have been useless or impertinent.

Art. XVII. *Strictures on Clerical Education in the University of Cambridge*. By the Rev. W. Cockburn, Christian Advocate, and late Fellow of St. John's College. 8vo. pp. 36. Price 1s. Hatchard, Longman and Co. 1809.

It is pretty evident that Mr. Cockburn really feels some doubt upon his conscience, whether he has done the church or the world much service as Christian Advocate. He could therefore hit upon nothing better, than to repeat the popular cry, *The Church is in Danger*. On this subject

we must own Mr. C. appears to us to have made but few additions to his stock of knowledge, since the memorable time when he declared, in addressing seceders from the church, that he could not learn who they were, in what they differed from each other, or why they separated from the establishment! No other man of reading or observation would have hazarded the opinion, that 'the dissenters universally prefer pastors without learning to those who have any!' p. 13. There are some points, however, in Mr. C.'s pamphlet, that deserve attention from the guardians of our Establishment. Aware, it seems, that the increase of separatism is in a great measure owing to the deficiency of learning, talents, and eloquence in the clergy, to which alledged deficiencies he should certainly have added, as the most important, so far as it may be found to exist, that of *zealous piety*,—he recommends the University—

'First, to be more circumspect in granting testimonials for orders, and to promulgate some general and irrefragable law on that important subject; Secondly, to encrease the necessity of religious study among the undergraduates, by granting no degrees to those who are void of ecclesiastical information; Thirdly, to offer some stimulus to batchelors, to induce them to proceed ardently in such pursuits; Fourthly, to require a real serious examination, very much on religious topics, from all incepting masters of arts; Fifthly, not to grant fellowships at so early a period as at present; Sixthly, to allow none to retain their fellowships above twelve years.' p. 34.

From the general style of the composition, we presume it is not thought necessary for a Christian Advocate to be eminent for vigour of intellect or delicacy of taste. The following is perhaps the most eloquent passage in the pamphlet, and those who admire it for grammatical correctness, will doubtless be delighted with its rhetorical beauty:—'when the highest Alps of literature is within sight and within reach, the unfatigued traveller stops suddenly, stands still awhile, and then sinks back gradually into the vale of idleness and ignorance.' From this exquisite morsel, we may learn, that 'Alps' is a singular noun, that the way to literary eminence is through idleness and ignorance, that a man of letters may if he please by sufficient exertion become both idle and ignorant, but that, if he is resolved to stand still and do nothing at all, he may remain as wise and as industrious as ever!

Art. XVIII. *A Charge delivered to the Clergy of the Archdeaconry of Sarum on the 11th 12th 13th and 14th, days of July, 1809.* By the Rev. Charles Daubeny, Archdeacon of Sarum. 8vo. pp. 38. price 1s. Rivington. 1809.

IN this discourse, Mr. D., after lamenting with becoming pathos the melancholy increase of schism, enters at some length, and with considerable candour, into an examination of the 'charges which are generally brought against the established church.' These he thinks reducible to two, 'want of zeal, and want of fidelity.' Mr. D. is, as some readers might presuppose a bigoted advocate: he does altogether deny the existence of such defects, but he conceives the accusations are too unlimited. As the best refutation, he exhorts his reverend auditors to increased diligence and fervour in the discharge

their sacred functions. The discourse is not quite free from impurity of doctrine, though much less turbid than some of this author's previous publications might lead us to expect. Mr. D. appears to clarify as he proceeds, and we are not without hopes that he may in time write himself into the true faith of the English church. He is still, however, a zealous opponent of that 'most absurd principle, the right of private judgement in matters of religion.'

Art XIX. *Letter from the Right Honourable Lord Grenville to the Earl of Fingall.* 8vo. pp. 16. price 1s. Stockdale. 1810.

THIS letter has been already extensively circulated in the newspapers, but is well deserving of republication in a more durable form. The object of the noble writer is, to dissuade the Catholic petitioners from partial and precipitate decisions; and, in particular, to express his regret at the rejection, on the part of the Irish Catholics, of the proposal to vest in the crown a negative on the appointment of bishops: a refusal, he observes, which can only tend to revive expiring prejudices and throw difficulties in the way of future discussion: which confessedly is not required by any fundamental tenet of faith, and which, in the present posture of affairs, is peculiarly unseasonable and embarrassing. Disclaiming all party views, and regarding the extension of civil rights to the Catholics, not as a single unconnected measure, but as an object affecting the union and welfare of the Empire, his Lordship is anxious to expose the impolicy of a punctilious attention to the dictates of party prejudice or private opinion.

'Much,' he observes, 'must be done for mutual conciliation, much for common safety; many contending interests must be reconciled, many jealousies allayed, many long cherished and mutually destructive prejudices eradicated.'—'By a systematic and comprehensive arrangement alone, all the various difficulties be surmounted which on every side embarrass this extensive subject. To be effective and permanent, such an arrangement must be mutually satisfactory.'

We hope no secret aversion, on the other side of the water, to an arrangement 'mutually satisfactory,' has been the real motive for throwing an impediment in its way. Like every thing else from the pen of Lord Grenville, this letter is written in a strain of nervous eloquence, and marked by a spirit of dignified moderation.

XX. *Candour and Consistency United; or Considerations on some important Duties connected with the Belief of Evangelical Truth.* 12mo. pp. 165. Price 3s. bds. Williams and Co. Button. 1809.

THIS publication, though particularly adapted to a certain class of Christians—those who maintain the exclusive propriety of baptism on profession of faith,—is not written in a sectarian spirit. Its principal objects are to point out the duty of believers to unite with some Christian society, to induce those who believe the doctrine in question to act in conformity to their belief, and to persuade such as have so acted to unite with a society holding the same tenet as themselves. Besides a variety of observations on these topics, there are some useful hints of a more general nature, on the duties involved in church membership. The author's candour and moderation will be approved by many who may deem his reasoning inaccurate, or his reasoning feeble. Christians of his own persuasion.

sion, who think *consistency* of any importance, may do well to reflect upon his suggestions.

Art. XXI. *The Obligation and Utility of Public Worship*: a Discourse delivered at the opening of the Old Jewry Chapel, Jewin Street, December 10, 1809; and published at the Request of the Society. By Abraham Rees, D. D. F. R. S. 8vo. pp. 27. Price 1s. Longman and Co. 1809.

A PLAIN unimpassioned discourse, less chargeable with faults of commission than of omission, is just what our readers would expect on a subject of this nature from Dr. Rees. His text is Neh. x. 32. *We will not forsake the house of our God.* The grounds of the determination, in this particular instance, are stated to be, a becoming deference to the judgment and practice of wise and good men, a sense of duty (on which topic the preacher is remarkably concise,) a desire of personal improvement, a regard to the honour of God and the influence of religion, and a principle of benevolence toward our fellow creatures. To those who inquire what other reason, than the peculiar occasion on which this discourse was preached, could have suggested the request to publish it, we are afraid we should not find it easy to give a satisfactory answer.

Art. XXII. *The Examiner examined, or Logic vindicated*; addressed to the Junior Students of the University of Oxford, By a Graduate. 8vo. pp. 57. price 2s. Oxford, Cooke; Mackinlay. 1809.

ADDISON has happily compared the blemishes of *Paradise Lost*, to spots in the sun. The allusion is not perhaps quite so applicable to Mr. Kett's '*Logic made easy*;' but we think yet that the graduate has pored upon its 'errors' through a somewhat magnifying medium—that he has discovered too determined a solicitude to detect, and too vindictive an anxiety to expose them. The examination, besides a good deal of temporary wit, contains some judicious observations on the subject in general; and while we acquit the writer of intentional malevolence, we cannot but regret that one who wields with equal dexterity the weapons of serious argument and sportive satire should have so seldom allied his wit with good humour, or enjoyed his victories with moderation. The complete flagellation he has bestowed on the indefatigable Mr. Kett, must be allowed to protect the pains-taking gentleman from the discipline we had intended for him and his fellows.

Art. XXIII. *England the Cause of Europe's Subjugation*, addressed to the British Parliament. 8vo. pp. 28. price 1s. Johnson. 1809.

FOR the strange purpose of proving to the satisfaction of the British Parliament, that the obstinate rejection of pacific overtures on the part of England, rather than the ambition or rapacity of France, was the real cause of 'Europe's subjugation,' the writer of this pamphlet discusses with great earnestness the policy of the several coalitions since the year 1799; and while he accuses the friends of Mr. Fox of having, by timid compliances, deserted the principles of their leader, upbraids with sufficient harshness of invective the war system of Mr. Pitt and his successors. In attempting to administer his unpalatable doctrine

the anonymous prescriber evinces a laudable zeal for the recovery of the patient; but without doubt he has greatly miscalculated his influence with the patient's executors.

Art XXIV. *An Oration* delivered on Monday, October 16, 1809, on laying the first Stone of the New Gravel-Pit Meeting House, in Paradise Field, Hackney. By Robert Aspland, Minister of the Gravel-Pit Congregation. Published by Request. 8vo. pp. 18. price 1s. Longman and Co. 1809.

If any of our readers give Mr. Aspland credit for extraordinary talent, or even for ordinary modesty, the announcement of this 'Oration' may excite expectations which it is our duty to remove. Its pretensions to a high rank among literary performances, induced us to hurry through its flimsy and affected paragraphs with the hope of finding at length some symptoms of genius and originality. An oration, we naturally thought, must be distinguished by novelty or force of sentiment, by splendor of imagery, or appeals to the heart. We now find, to our mortification, that this idea of an oration is exceedingly incorrect; and that we must admit, with becoming deference to Mr. Aspland's authority, that a common place harangue, terminating with a most awkward, laboured, and puerile sally of rhetoric, (which a plain orthodox dissenting minister, if he had ventured to publish at all, would have called an *Address*,) may with great propriety, if it come from one of a more rational order, be classed with the productions of Cicero and Bossuet.

Mr. A. takes great credit to himself and his party for the simplicity of their faith, holding, 'professedly and as a body, no articles which are not, and have not been always, held, by the universal church.' It is probably the superior simplicity of the Deist's creed which has proved so irresistibly attractive to a large proportion of Unitarians. Mr. A. tells us that his 'communion is open to all that are sound character;' not meaning, we hope, to be so puritanical as to interdict any thing *unsound*, but what is punishable by the laws of his country. It seems obvious that there is nothing in the constitution of a Unitarian church, which should prevent decent and sober Mus-  
 men from being its members, and (if there were any temptation to) from becoming the majority and appointing the minister. Mr. A. proceeds to inform us that in his opinion 'the worst heresy is a wicked life;' and this, we believe, is rather a popular notion among his party. Fortunately, there is not much sense in it; because a wicked life is not a heresy at all. Error in practice and error in principle are both bad, but they are very different things. Neither is it true that a wicked life is necessarily worse than a heresy, unless it be true that a particular evil effect is more baneful than a general evil principle tending to produce a vast number of such effects. If Mr. Aspland mean to insinuate that a wicked life is not held, by other denominations of Christians, to disqualify a person for communion as much as a reputed heresy, it becomes him to produce his proofs, or to direct attentively on a very wholesome and necessary hint of his with which, as the best passage in the 'Oration,' we shall now discuss it: 'least of all persons,' says he, should we be excusable, if any uncharitable sentiments or deeds we brought upon ourselves the charge of *ligotry*.'

Art. XXV. *Sonnets, and other Poems.* By Martha Hanson. 2 vols. fcp. 8vo. pp. 350 price 14s. bds. Mawman 1809.

SOME of our fraternity have insisted, we think too rigorously, that even a lady should not venture to publish till she has made a tolerable proficiency in grammar and spelling. We will not be so unreasonably 'sensorious,' but freely admit that the 'circumstances which now leads to print' a couple of volumes of sonnets and other poems, may be so urgent as not to allow of the delay which in other cases we should earnestly recommend, or that the poetical talent they exhibit may atone for any trivial inaccuracy. It does not appear, however, that our fair author can take shelter under either of these apologies. But if any of our readers are not sufficiently pestered with manuscript poetry of the same kind from the portfolios of their friends and acquaintance, we sincerely hope that nothing we have said or omitted to say of this neat publication, will dissuade them from adding it to their other needless and harmless luxuries. They may form some idea what a treat they will have, from reading a few of the titles; 'Stanzas supposed to be written among the ruins of an Abby in Scotland,' 'Sonnet to the spirit of my infant years,' 'To a friend who came on the eve of the new year to pass a few days with us,' 'Stanzas to a grey linnet which had been shot in the wing, and sung before it had been caged three weeks, the author having prevented its being thrown to the cat by a servant,' 'Stanzas supposed to be written by a lady, on being wished many happy returns of her birthday.'

Art. XXVI. *The Hospital, a Poem.* 4to. pp. 23. price 2s. Longman and Co. 1810.

WE cannot speak of this *preparation*, in terms of unqualified praise. Of the author's professional capabilities we see no reason to doubt, and he displays occasional gleams of poetical talent; but he has got hold of a most unfortunate *subject*. It is impossible to read his invocation to the muse, and be serious.

'Come then my muse, together let us climb  
The spacious stairs, and walk the upper wards.'

If these lines, however, are laughable there, are others so miserably dislocated that it is quite shocking to look upon them.

'You seek their miserable cot, when dire  
Misfortune chains them to their bed, and cheer  
Their fainting souls'—

— 'next after these in strict  
Rotation pass the numerous poor who fill  
The spacious hall'—

'Tis hard, but still it might be worse. No dread  
Convulsion shakes thy tortured frame. Reason  
Maintains her power,' &c.—

— 'ye aged towr's, I thank  
You for the aid you lent the nymph when she,' &c.

How many books are to follow this 'specimen,' or how many will remain to be sung, we are unable to conjecture: but we cannot, in common humanity, encourage the muse in her perambulations, till she has acquired some tolerable expertness in the use of her legs.

## ART. XXVII. SELECT LITERARY INFORMATION.

*Gentlemen and Publishers who have works in the press, will oblige the Conductors of the ECLECTIC REVIEW, by sending information (post paid,) of the subject, extent, and probable price of such works; which they may depend upon being communicated to the public, if consistent with its plan.*

The Rev. William Bawdwen proposes publishing by Subscription, in ten volumes, quarto, a literal Translation of the whole of Domesday Book; with the modern Names of Places, adapted as far as possible to those in the Record. An Index will be given to each County, and a Glossary with the last volume. Two Guineas to be paid on the Delivery of each volume. Any one volume may be subscribed for separately. The volume already published, contains the County of York, including Amounderness, Lonsdale, and Furness, in Lancashire, and such parts of Westmoreland and Cumberland as are contained in the Survey; and also the Counties of Derby, Nottingham, Rutland and Lincoln.

Mr. Thomas Haynes has in the press, new and interesting Discoveries in Horticulture, as an improved system of propagating Fruit-trees, Ever-greens, and deciduous ornamental Trees and Shrubs.

Jesse Foot, Esq. Surgeon, is preparing for publication the Lives of Andrew Robinson Bowes and the Countess of Strathmore his Wife.

The Rev. W. Kirby, A. B. F. L. S. Author of *Monographia Apum Angl.* and Mr. W. Spence, F. L. S. are engaged in preparing an introduction to Entomology, which is in a state of considerable forwardness. The plan of the work is popular, but without overlooking science, to the technical and anatomical departments of which, much new matter will be contributed. Its object, after obviating objections and removing prejudices, is to include every thing useful and interesting to the Entomological Student, except descriptions of Genera and species, which are foreign to the nature of such a work.

A new edition of Dr. Russel's History of Modern Europe, continued to the Treaty of Amiens, by Dr. Coote, will be published in the course of next month.

Edward Scott Waring, Esq. will shortly publish a History of the Mahattas, prefaced by a historical sketch of the Decan, prior to the era of Mahatta independence.

Mr. B. Travers, Demonstrator of

Anatomy at Guy's Hospital, has in the press an experimental Inquiry concerning Injuries to the Canal of the Intestines, illustrating the treatment of the Hernia.

Mr. R. Stocker, Apothecary to Guy's Hospital, has in the press the new London Pharmacopœia, enlarged from the last Edinburgh and Dublin Pharmacopœias, and reduced to one common nomenclature; with an appendix of the genera and species of the different articles of their Materia Medica.

Dr. Maclean will shortly publish an Inquiry into the Origin, early Signs, Nature, Causes, and Cure of Hydrothorax, with a number of interesting cases.

Mr. Ashford, Member of the Royal College of Surgeons, has in the press an Epitome of Anatomy, comprised in a series of tables. It will form a thin quarto volume, and its object is to furnish a copious vocabulary for the students of anatomy.

To be published in the present month in 2 vols. 8vo. an Essay on National Governments. By George Ensor, Esq. Author of the *Independent Man*, and *Principles of Morality*.

Soon will be published, *Tales of Romance*, with other Poems. By Charles A. Elton, Author of a Translation of *Hesiod*. Handsomely printed in folscep 8vo. with four plates, after designs by Mr. Bird.

Mr. Cooke, of Brentford, has in the press a practical Treatise on *Tinea Capitis Contagiosa*; together with Inquiries into the Nature and Cure of *Fungus Hæmatodes* and *Nævi Materni*.

Dr. Whitaker, the learned Historian of Whalley and of Craven, will shortly publish an interesting quarto volume, formed principally from Letters of Sir George Radcliffe.

Mr. Hutton of Birmingham, has in the press a Trip to Coatham, a new and beautiful watering place on the coast of Yorkshire.

The Rev. I. Williams, M. A. Curate of Stroud, Gloucestershire, will shortly publish a small volume of Poems, illustrative of Subjects Moral and Divine,

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'Come then my muse, together let us climb  
The spacious stairs, and walk the upper wards.'

If these lines, however, are laughable there, are others so miserable as to be quite shocking to look upon them.

'You seek their miserable cot, when dire  
Misfortune chains them to their bed, and cheer  
Their fainting souls'—

— 'next after these in strict  
Rotation pass the numerous poor who fill  
The spacious hall'—

'Tis hard, but still it might be worse. No dread  
Convulsion shakes thy tortured frame. Reason  
Maintains her power,' &c.—

— 'ye aged tow'rs, I thank  
You for the aid you lent the nymph when she,' &c.

How many books are to follow this 'specimen,' or how many will remain to be sung, we are unable to conjecture: but we cannot, in common humanity, encourage the muse in her perambulations, till she has acquired some tolerable expertness in the use of her legs.

# ART. XXVII. SELECT LITERARY INFORMATION.

\*Gentlemen and Publishers who have works in the press, will oblige the Conductors of the ECLECTIC REVIEW, by sending information (post paid,) of the subject, extent, and probable price of such works; which they may depend upon being communicated to the public, if consistent with its plan.

The Rev. William Bawdwen proposes publishing by Subscription, in ten volumes, quarto, a literal Translation of the whole of Domesday Book; with the modern Names of Places, adapted as far as possible to those in the Record. An Index will be given to each County, and a Glossary with the last volume. Two Guineas to be paid on the Delivery of each volume. Any one volume may be subscribed for separately. The volume already published, contains the County of York, including Amounderness, Lonsdale, and Furness, in Lancashire, and such parts of Westmoreland and Cumberland as are contained in the Survey; and also the Counties of Derby, Nottingham, Rutland and Lincoln.

Mr. Thomas Haynes has in the press, new and interesting Discoveries in Horticulture, as an improved system of propagating Fruit-trees, Ever-greens, and deciduous ornamental Trees and Shrubs.

Jesse Foot, Esq. Surgeon, is preparing for publication the Lives of Andrew Robinson Bowes and the Countess of Strathmore his Wife.

The Rev. W. Kirby, A. B. F. L. S. Author of *Monographia Apum Angl.* and Mr. W. Spence, F. L. S. are engaged in preparing an introduction to Entomology, which is in a state of considerable forwardness. The plan of the work is popular, but without overlooking science, to the technical and anatomical departments of which, much new matter will be contributed. Its object, after pointing out objections and removing prejudices, is to include every thing useful or interesting to the Entomological Student, except descriptions of Genera and species, which are foreign to the nature of such a work.

A new edition of Dr. Russel's History of Modern Europe, continued to the Treaty of Amiens, by Dr. Coote, will be published in the course of next month. Edward Scott Waring, Esq. will shortly publish a History of the Mahometans, prefaced by a historical sketch of the Decan, prior to the era of Mahomet's independence.

Mr. B. Travers, Demonstrator of

Anatomy at Guy's Hospital, has in the press an experimental Inquiry concerning Injuries to the Canal of the Intestines, illustrating the treatment of the Hernia.

Mr. R. Stocker, Apothecary to Guy's Hospital, has in the press the new London Pharmacopœia, enlarged from the last Edinburgh and Dublin Pharmacopœias, and reduced to one common nomenclature; with an appendix of the genera and species of the different articles of their Materia Medica.

Dr. Maclean will shortly publish an Inquiry into the Origin, early Signs, Nature, Causes, and Cure of Hydrothorax, with a number of interesting cases.

Mr. Ashford, Member of the Royal College of Surgeons, has in the press an Epitome of Anatomy, comprised in a series of tables. It will form a thin quarto volume, and its object is to furnish a copious vocabulary for the students of anatomy.

To be published in the present month in 2 vols. 8vo. an Essay on National Governments. By George Ensor, Esq. Author of the *Independent Man*, and *Principles of Morality*.

Soon will be published, *Tales of Romance*, with other Poems. By Charles A. Elton, Author of a Translation of Hesiod. Handsomely printed in folscep 8vo. with four plates, after designs by Mr. Bird.

Mr. Cooke, of Brentford, has in the press a practical Treatise on *Tinea Capitis Contagiosa*; together with Inquiries into the Nature and Cure of Fungus *Hæmatodes* and *Nævi Materni*.

Dr. Whitaker, the learned Historian of Whalley and of Craven, will shortly publish an interesting quarto volume, formed principally from Letters of Sir George Radcliffe.

Mr. Hutton of Birmingham, has in the press a Trip to Coatham, a new and beautiful watering place on the coast of Yorkshire.

The Rev. I. Williams, M. A. Curate of Stroud, Gloucestershire, will shortly publish a small volume of Poems, illustrative of Subjects Moral and Divine.

to which will be added, an Ode on Vaccination, addressed to Dr. Jenner.

The Rev. D. Davies, of Milford in Derbyshire, is preparing a Historical and Descriptive View of the Town and County of Derby, to be comprised in a large volume octavo.

In the press, Voyages and Travels to Pekin, Manilla, and the Isle of France, between 1784 and 1801. By M. De Guignes, French Resident at China, &c. &c. Handsomely printed in one volume 4to. with plates, similar to Mr. Barrow's Account of China.

Proposals are issued for printing, by

Subscription, a Rational Demonstration of the Divine Authority of the Bible, to be printed with a large type, on thick paper. Price 10s. in boards, demy octavo.

The Rev. Dr. Baker, of Cawston in Norfolk, has put to the press, the Psalms evangelized, in a continued Explanation, wherein is seen, the Unity of divine Truth, the Harmony of the old and new Testaments, and the peculiar Sentiment of Christianity in Accordance with the Experience of Believers in all Ages. It is intended to be comprised, if possible, in one large octavo volume.

## Art. XXVII. LIST OF WORKS RECENTLY PUBLISHED.

### AGRICULTURE.

A Review of the Reports to the Board of Agriculture from the Western Department of England; comprising Cheshire, Flintshire, Shropshire, Herefordshire, Worcestershire, North Wiltshire, North Somersetshire, &c. By Mr. Marshall, 8vo. 12s.

### BIOGRAPHY.

The Life of Apollonius of Tyana, translated from the Greek of Philostratus, with notes and illustrations. By the Rev. Edward Berwick, Vicar of Leixlip in Ireland. 8vo. 12s.

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